National Défense
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A-CR-CCP-702/PF-001

ROYAL CANADIAN ARMY CADETS

RED STAR – INSTRUCTIONAL GUIDES

(ENGLISH)

Cette publication est disponible en français sous le numéro A-CR-CCP-702/PF-002.

Issued on Authority of the Chief of the Defence Staff

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FOREWORD AND PREFACE

1. **Issuing Authority.** This Instructional Guide (IG) A-CR-CCP-702/PF-001 was developed under the authority of the Director Cadets and Junior Canadian Rangers, and issued on the authority of the Chief of Defence Staff.

2. **Development.** Development of this IG was in accordance with the performance oriented concept of training outlined in the A-P9-050 Series, Canadian Forces Individual Training and Education System, with modifications to meet the needs of the Canadian Cadet Organization.

3. **Purpose of the IG.** The IG to be used by Royal Canadian Army Cadet Corps in conjunction with other resources to conduct the Red Star Program. The IG provides instructors with the base means from which to deliver training. Individual IGs are to be reviewed in conjunction with the Lesson Specifications (LSs) found in Chapter 4 of A-CR-CCP-702/PG-001, *Royal Canadian Army Cadet Red Star Qualification Standard and Plan*, before instructing, so that each instructor can adequately plan for and prepare each lesson. Instructors may be required to develop instructional materials to support training in addition to any that may be provided, e.g. posters, videos, handouts, models, etc., supplemental to training control and support documents. Suggested instructional activities are included in most IGs to maximize learning and fun. Instructors are also encouraged to modify and/or enhance the activities, as long as they continue to contribute to enabling objectivity achievement.

4. **Use of the IG.** Throughout these instructional guides, a series of information boxes are used to highlight information; they include:

Note to the Instructor.

Key information to pass along to cadets.

Refer to the following CF regulations and policies.

Points of interest or special instructions the instructor should pass along to cadets.

5. **Suggested Changes.** Suggested changes to this document shall be forwarded through the normal chain of command to National Defence Headquarters (NDHQ) Attention: Army Cadet Program Development Staff Officer (D Cdts 3-2-5), or by email to arm.dev@cadets.net.

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CHAPTER 1

PO 201 – IDENTIFY THE ROLE OF AN ENVIRONMENTALLY CONSCIOUS CANADIAN CITIZEN

COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 1

EO M201.01 – DISCUSS THE RIGHTS AND RESPONSIBILITIES OF A CANADIAN CITIZEN

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Photocopy the handout at Annex A for each cadet.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TP1 and TP2 to orient the cadets to the rights and responsibilities of a Canadian citizen, generate an interest and to present basic material.

A group discussion was chosen for TP3 as it allows the cadets to interact with their peers and share their knowledge, experiences, opinions, and feelings about the rights and responsibilities of a Canadian citizen.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to identify the rights and responsibilities of a Canadian citizen.

IMPORTANCE

Cadets are valued members of their community and they have the ability to make positive contributions to society. Recognizing and understanding the rights and responsibilities of a Canadian citizen may assist cadets in positively impacting their community.

Teaching Point 1 **Explain the Rights of a Canadian Citizen**

Time: 10 min Method: Interactive Lecture

Every Canadian citizen is granted certain rights based on Canada's tradition of democracy and respect for human dignity and freedom. These rights are found in Canada's *Human Rights Codes* and in the Canadian *Charter of Rights and Freedoms*.

All Canadians have the following rights:

- **Equality Rights.** Every citizen is entitled to equal treatment before and under the law, and equal protection and benefit of the law without discrimination.
- **Democratic Rights.** Every citizen has the right to participate in political activities including voting and being elected to political office.
- **Legal Rights.** Every citizen has the right to be presumed innocent until proven guilty, the right to retain a lawyer and to be informed of that right and the right to an interpreter in court proceedings.
- **Mobility Rights.** Every citizen has the right to enter and leave Canada, and to move to and take up residence in any province.
- **Language Rights.** Every citizen has the right to use either the English or French language in communications with the federal government and certain provincial governments.
- **Minority Language Education Rights.** In general, English and French minorities in every province and territory have the right to be educated in their own language.

Canadians also enjoy fundamental freedoms of religion, thought, expression, peaceful assembly and association.

If Canadian citizens have their rights violated by the federal, provincial or territorial governments or their rights are violated by others, Canadian citizens can challenge that action in court.

English and French are the two official languages of Canada. They are an important part of our national heritage and national identity.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. Where are the rights of a Canadian citizen found?

Q2. Name the rights of a Canadian citizen.

Q3. What other fundamental freedoms do Canadian citizens have?

ANTICIPATED ANSWERS

A1. The rights of a Canadian citizen are found in Canada's *Human Rights Codes* and in the Canadian *Charter of Rights and Freedoms*.

A2. The rights of a Canadian citizen include:

- equality rights – equal treatment and protection from discrimination before the law,

- democratic rights – participation in political activities,
- legal rights – the presumption of innocence until proven guilty,
- mobility rights – the ability to move within the country,
- language rights – using either official language when dealing with the federal government, and
- minority language education rights – education conducted in either official language for the English or French minority.

A3. Canadians also enjoy fundamental freedoms of religion, thought, expression, peaceful assembly and association.

Teaching Point 2 **Explain the Responsibilities of a Canadian Citizen**

Time: 5 min Method: Interactive Lecture

Canadian citizens share certain common responsibilities.

These responsibilities are:

- understanding and obeying Canadian laws;
- participating in Canada's democratic political system;
- voting in elections;
- allowing other Canadians to enjoy their rights and freedoms; and
- appreciating and helping to preserve Canada's multicultural heritage.

All Canadians are encouraged to become informed about political activities and to help better their communities and the country by reading a newspaper, watching news programs, etc.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. List the responsibilities of a Canadian citizen.

Q2. What are all Canadians encouraged to do?

Q3. What are some ways Canadian citizens may become informed about political activities?

ANTICIPATED ANSWERS

A1. These responsibilities are:

- understanding and obeying Canadian laws;
- participating in Canada's democratic political system;
- voting in elections;
- allowing other Canadians to enjoy their rights and freedoms; and
- appreciating and helping to preserve Canada's multicultural heritage.

A2. All Canadians are encouraged to become informed about political activities and to help better their communities and the country.

A3. Answers will vary (read a newspaper, watch news programs, etc.).

Teaching Point 3 **Conduct a Group Discussion Where Cadets Decide Which Right or Responsibility Is the Most Important to Them**

Time: 10 min Method: Group Discussion

BACKGROUND KNOWLEDGE

The point of the group discussion is to draw the following information from the group using the tips for answering/facilitating discussion and the suggested questions provided.

Distribute the handout of rights and responsibilities of a Canadian citizen located at Annex A.

TIPS FOR ANSWERING/FACILITATING DISCUSSION

- Establish ground rules for discussion, e.g. everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Manage time by ensuring the cadets stay on topic.
- Listen and respond in a way that indicates you have heard and understood the cadet. This can be done by paraphrasing their ideas.
- Give the cadets time to respond to your questions.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer. Cadets must also have the option to pass if they wish.
- Additional questions should be prepared ahead of time.

SUGGESTED QUESTIONS

Q1. Which of the rights of a Canadian citizen do the cadets think is the most important to them?

Q2. Why was that right chosen?

Q3. Which of the responsibilities of a Canadian citizen do the cadets think is the most important to them?

Q4. Why was that responsibility chosen?

Other questions and answers will develop throughout the group discussion. The group discussion should not be limited to only those suggested.

Reinforce those answers given and comments made during the group discussion, ensuring the teaching point has been covered.

CONFIRMATION OF TEACHING POINT 3

The cadets' participation in the group discussion will serve as confirmation of this TP.

END OF LESSON CONFIRMATION

QUESTIONS

Q1. Name the rights of a Canadian citizen.

Q2. List the responsibilities of a Canadian citizen.

Q3. What are Canada's two official languages?

ANTICIPATED ANSWERS

A1. The rights of a Canadian citizen include:

- equality rights – equal treatment and protection from discrimination before the law;
- democratic rights – participation in political activities;
- legal rights – the presumption of innocence until proven guilty;
- mobility rights – the ability to move within the country;
- language rights – using either official language when dealing with the federal government; and
- minority language education rights – education conducted in either official language for the English or French minority.

A2. The responsibilities of a Canadian citizen are:

- understanding and obeying Canadian laws;
- participating in Canada's democratic political system;
- voting in elections;
- allowing other Canadians to enjoy their rights and freedoms; and
- appreciating and helping to preserve Canada's multicultural heritage.

A3. Canada's two official languages are English and French.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

All Canadian citizens have certain rights and responsibilities. Recognizing and understanding the rights and responsibilities of a Canadian citizen may assist cadets in making a positive impact on their community.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

C0-081 Citizenship and Immigration Canada. (2006). *Fact Sheet: Rights and Responsibilities.* Retrieved 2 February 2007, from http://www.cic.gc.ca/english/newcomer/fact_08e.html.

COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 2

EO M201.02 – DISCUSS THE PRINCIPLES OF ENVIRONMENTAL STEWARDSHIP

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Photocopy the handout located at Annex B for each cadet.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TP1 and TP2 to orient the cadets to the principles of environmental stewardship, generate an interest and present basic material.

A group discussion was chosen for TP3 as it allows the cadets to interact with their peers and share their knowledge, experiences, opinions, and feelings about environmental stewardship.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to discuss the principles of environmental stewardship.

IMPORTANCE

It is important for cadets to learn the principles of environmental stewardship so cadets may become more environmentally conscious.

Teaching Point 1 **Explain the Government of Canada's Code of Environmental Stewardship**

Time: 10 min Method: Interactive Lecture

As part of being a responsible Canadian citizen, cadets should be aware of their role in protecting the environment.

The Government of Canada has enacted legislation in order to ensure the protection of the environment and that human health is not endangered.

Distribute the Government of Canada's *Code of Environmental Stewardship* located at Annex B.

To reflect the Government's dedication to protecting the environment, in all aspects of its operations and activities, it has created the Government of Canada's *Code of Environmental Stewardship*.

The Government commits to:

- incorporating environmental concerns in relevant decisions. The Government must take environmental concerns into account in every decision and piece of legislation it writes and passes;
- ensuring environmental considerations are incorporated in purchasing practices. The Government must consider the environment when it purchases anything, from submarines to paper products;
- applying environmentally responsible practices in disposal. The Government must use environmentally responsible practices when acquiring, using, transporting, storing and disposing of hazardous materials. A hazardous material is any item or agent which has the potential to cause harm to humans, animals, or the environment, either by itself or through interaction with other factors. These materials may be biological, nuclear, chemical, etc.;
- meeting or exceeding federal environmental laws. The Government has pledged to meet or exceed the letter and spirit of federal environmental laws and, where appropriate, to be compatible with provincial, territorial and international standards;
- reusing, recycling and reducing waste. The Government has to find methods to seek cost-effective ways to reduce the use of raw materials, toxic substances, energy, water and other resources. The Government has also promised to recycle and reuse items where appropriate; and
- improving the level of environmental awareness. The Government has undertaken the task of improving the level of environmental awareness throughout the public service. It stresses to its employees the environmental and health benefits of environmental awareness and encourages and recognizes beneficial actions of employees.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. Why should cadets be aware of their role in protecting the environment?

Q2. What is the name of the legislation that the Government created to protect the environment?

Q3. What does the Government commit to under the *Code of Environmental Stewardship*?

ANTICIPATED ANSWERS

A1. Cadets should be aware of their role in protecting the environment because it is part of being a responsible citizen.

A2. The Government of Canada's *Code of Environmental Stewardship*.

A3. The Government commits to:

- incorporating environmental concerns in relevant decisions;
- ensuring environmental considerations are incorporated in purchasing practices;
- applying environmentally responsible practices in disposal;
- meeting or exceeding federal environmental laws;
- reusing, recycling and reducing waste; and
- improving the level of environmental awareness.

Teaching Point 2 **Explain That the CCM Has a Code of Environmental Stewardship in CATO 11-08, Environmental Protection and Stewardship**

Time: 5 min Method: Interactive Lecture

To ensure the Cadet Program stays well within the Government's *Code of Environmental Stewardship*, the CCO created a Cadet Administrative and Training Order (CATO) 11-08, *Environmental Protection and Stewardship*. This order prescribes national policy for the Canadian Cadet Organization/Cadet Instructor Cadre (CCO/CIC) on environmental matters.

The CCO/CIC must ensure the protection of the environment during all activities by adopting environmentally sound practices and by complying with federal, provincial and territorial environmental legislation and regulations, municipal environmental bylaws, as well as the DND's environmental regulations.

The term due diligence is found throughout CATO 11-08, *Environmental Protection and Stewardship*. The definition of due diligence is the exercise of reasonable care in the conduct of one's business or duties. To demonstrate due diligence, a member must show that they did all that any reasonable person would have done in the same circumstance to avoid a foreseeable risk of harm to the environment.

If due diligence is not practiced and an offence in violation of environmental legislation occurs there may be legal liabilities.

If a member of the CF does not comply with the Government's *Code of Environmental Stewardship* they may be personally liable to cover financial loss or they may be imprisoned.

If a cadet does not comply with the Government's *Code of Environmental Stewardship* they may be charged under the Youth Criminal Justice Act.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. What is the number and the name of the CATO that protects the environment?

Q2. What is the definition of due diligence?

Q3. What may happen to a cadet who does not comply with the Government's *Code of Environmental Stewardship*?

ANTICIPATED ANSWERS

A1. CATO 11-08, *Environmental Protection and Stewardship.*

A2. The definition of due diligence is the exercise of reasonable care in the conduct of one's business or duties.

A3. If a cadet does not comply with the Government's *Code of Environmental Stewardship* they may be charged under the *Youth Criminal Justice Act*.

Teaching Point 3 **Conduct a Group Discussion About Environmental Stewardship Within the Cadet Program**

Time: 10 min Method: Group Discussion

BACKGROUND KNOWLEDGE

The point of the group discussion is to explore environmental stewardship within the Cadet Program using the tips for answering/facilitating discussion and the suggested questions provided.

GROUP DISCUSSION

TIPS FOR ANSWERING/FACILITATING DISCUSSION

- Establish ground rules for discussion, e.g. everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Manage time by ensuring the cadets stay on topic.
- Listen and respond in a way that indicates you have heard and understood the cadet. This can be done by paraphrasing their ideas.
- Give the cadets time to respond to your questions.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer. Cadets must also have the option to pass if they wish.
- Additional questions should be prepared ahead of time.

SUGGESTED QUESTIONS

Q1. What is being done or can be done to reduce, reuse and recycle at the corps?

Q2. What is being done or can be done to improve environmental awareness at the corps?

Q3. What is being done or can be done to improve environmental awareness when the corps conducts an outdoor activity?

Q4. What is being done or can be done by the corps to improve environmental awareness in the community?

Other questions and answers will develop throughout the group discussion. The group discussion should not be limited to only those suggested.

Reinforce those answers given and comments made during the group discussion, ensuring the teaching point has been covered.

CONFIRMATION OF TEACHING POINT 3

The cadets' participation in the group discussion will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

QUESTIONS

Q1. Within the Government of Canada's *Code of Environmental Stewardship*, what does the Government commit to?

Q2. What is the definition of due diligence?

Q3. What is the number and the name of the CATO that protects the environment?

ANTICIPATED ANSWERS

A1. The Government commits to:

- incorporating environmental concerns in relevant decisions;
- ensuring environmental considerations are incorporated in purchasing practices;
- applying environmentally responsible practices in disposal;
- meeting or exceeding federal environmental laws;
- reusing, recycling and reducing waste; and
- improving the level of environmental awareness.

A2. The definition of due diligence is the exercise of reasonable care in the conduct of one's business or duties.

A3. CATO 11-08, *Environmental Protection and Stewardship*.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Cadets may be given many opportunities to display environmental stewardship during the training year. Being aware of the human impact on the environment may allow cadets to have a positive effect in their community and may encourage them to be more proactive in applying the principles of environmental stewardship.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

A0-039 CATO 11-08 D Cdts 3. (1997). *Environmental Protection and Stewardship*. Ottawa, ON: Department of National Defence.

C0-090 Environment Canada. (2007). *Code of Environmental Stewardship*. Retrieved 2 February 2007, from http://www.ns.ec.gc.ca/g7/code.html.

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COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 3

EO C201.01 – DISCUSS ENVIRONMENTAL ISSUES RELATIVE TO CANADA

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Research the locations of local recycling of aluminum cans, bottles, paper/cardboard, batteries and other recycling opportunities. Research the locations of the nearest biomedical and chemical waste disposal sites within the province/territory.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

A group discussion was chosen for this lesson to allow the cadets to interact with their peers and share their knowledge, experiences, opinions, and feelings about environmental issues.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall discuss environmental issues relative to Canada.

IMPORTANCE

It is important for cadets to know about the environmental issues facing our nation so that they have information to make decisions about the impact they may have on the environment now and for the future.

Teaching Point 1 **Conduct a Group Discussion on the Recycling Opportunities in the Local Community**

Time: 10 min Method: Group Discussion

References for TP1 can be found by investigating the Website for your local municipality, region and/or province/territory.

BACKGROUND KNOWLEDGE

The point of the group discussion is to draw recycling opportunities in the local community from the group using the tips for answering/facilitating discussion and the suggested questions provided.

GROUP DISCUSSION

TIPS FOR ANSWERING/FACILITATING DISCUSSION

- Establish ground rules for discussion, e.g. everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Manage time by ensuring the cadets stay on topic.
- Listen and respond in a way that indicates you have heard and understood the cadet. This can be done by paraphrasing their ideas.
- Give the cadets time to respond to your questions.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer. Cadets must also have the option to pass if they wish.
- Additional questions should be prepared ahead of time.

SUGGESTED QUESTIONS

Q1. What are the opportunities in the local community for aluminum can and bottle recycling?

Q2. Where is this facility located?

Q3. What are the opportunities in the local community for paper/cardboard recycling?

Q4. Where is this facility located?

Q5. What are the opportunities in the local community for battery recycling?

Q6. Where is this facility located?

Q7. What other opportunities are there to recycle in the local community?

Q8. Where are these facilities located?

Other questions and answers will develop throughout the group discussion. The group discussion should not be limited to only those suggested.

Reinforce those answers given and comments made during the group discussion, ensuring the teaching point has been covered.

CONFIRMATION OF TEACHING POINT 1

The cadets' participation in the group discussion will serve as confirmation of this TP.

Teaching Point 2 — **Conduct a Group Discussion on Suggestions for Lowering Greenhouse Gas Emissions Locally, Provincially/Territorially or Nationally**

Time: 10 min — Method: Group Discussion

BACKGROUND KNOWLEDGE

The point of the group discussion is to draw the following information from the group using the tips for answering/facilitating discussion and the suggested questions provided.

Greenhouse gas emissions are the gases released into the atmosphere that affect the temperature and climate of the Earth's surface. The main greenhouse gases emitted, due to human activity, are carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O). CO_2 emissions are mainly from burning fossil fuels and deforestation. These emissions have led to the largest increase in atmospheric greenhouse gas concentrations since the Industrial Revolution and they have affected the radiation transfer through the atmosphere. This is called the greenhouse effect. The greenhouse effect is the heating of the Earth's surface and lower atmosphere.

Simple things that may be done to lower greenhouse gas emissions may include:

- walking or taking public transit instead of driving a vehicle;
- avoiding unnecessary idling of a vehicle;
- driving a hybrid car;

- investing in a programmable thermostat;
- turning down the temperature in the house before going to sleep;
- replacing standard bulbs with fluorescent bulbs; and
- turning off lights when not in the room.

Things that may be done by the provincial/territorial and national governments to lower greenhouse emissions may include:

- tax incentives for towns and cities to create public transportation;
- researching and developing alternate fuels and energy sources;
- taxing;
- educating the public about greenhouse gas emissions; and
- having all governments employees use the ideas from the previous TP.

GROUP DISCUSSION

TIPS FOR ANSWERING/FACILITATING DISCUSSION

- Establish ground rules for discussion, e.g. everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Manage time by ensuring the cadets stay on topic.
- Listen and respond in a way that indicates you have heard and understood the cadet. This can be done by paraphrasing their ideas.
- Give the cadets time to respond to your questions.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer. Cadets must also have the option to pass if they wish.
- Additional questions should be prepared ahead of time.

SUGGESTED QUESTIONS

Q1. What simple things may be done to help lower greenhouse gas emissions?

Q2. What things may be done by provincial/territorial and national governments to lower greenhouse emissions?

Q3. What things are being done by governments to reduce the amount of greenhouse gas emissions?

Other questions and answers will develop throughout the group discussion. The group discussion should not be limited to only those suggested.

Reinforce those answers given and comments made during the group discussion, ensuring the teaching point has been covered.

CONFIRMATION OF TEACHING POINT 2

The cadets' participation in the group discussion will serve as the confirmation of this TP.

Teaching Point 3 **Conduct a Group Discussion on Local, Provincial/Territorial or National Hazardous Waste Disposal Sites**

Time: 5 min Method: Group Discussion

BACKGROUND KNOWLEDGE

The point of the group discussion is to draw the following information from the group using the tips for answering/facilitating discussion and the suggested questions provided.

There are different types of waste created by human activity. The most dangerous type of waste is called hazardous waste. Different types of hazardous waste include nuclear waste, biomedical waste, chemical waste and household hazardous waste.

Although nuclear waste has been safely stored for the short-term, no permanent disposal system has been fully developed. Every country that uses nuclear power is trying to find an answer to this international problem.

The locations of the nearest biomedical and chemical waste disposal sites within the province/territory may be found by contacting the provincial/territorial government.

Biomedical waste is created in every hospital, clinic and dentist's office in the country. These wastes must be separately stored and transported to sites within the country for disposal. These wastes are very dangerous because they may be contaminated with infectious viruses and bacteria.

Chemical wastes, like industrial chemicals and solvents, must be disposed of in special areas located around the country. Some chemicals, like polychlorinated biphenyls (PCBs) and dioxin, are disposed of at the Swan Hills Treatment Centre, in Alberta, the only centre of its kind in the country. These chemical wastes are very dangerous and have proven, in some cases, to cause cancer.

Some household hazardous waste items may include (this list is not exhaustive):

- motor oil,
- prescription drugs,
- cleaning products,
- paints,
- car waxes and polishes,
- weed killers,
- antifreeze,
- propane gas cylinders,
- solvents, turpentine, varnishes, lacquers, and
- products with flammable, corrosive, explosive, toxic, or poisonous warning labels, etc.

GROUP DISCUSSION

TIPS FOR ANSWERING/FACILITATING DISCUSSION

- Establish ground rules for discussion, e.g. everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Manage time by ensuring the cadets stay on topic.
- Listen and respond in a way that indicates you have heard and understood the cadet. This can be done by paraphrasing their ideas.
- Give the cadets time to respond to your questions.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer. Cadets must also have the option to pass if they wish.
- Additional questions should be prepared ahead of time.

SUGGESTED QUESTIONS

Q1. What is the most dangerous type of waste?

Q2. Why is biomedical and chemical waste not stored in garbage dumps?

Q3. Where in the community are household hazardous wastes collected? How often?

Other questions and answers will develop throughout the group discussion. The group discussion should not be limited to only those suggested.

Reinforce those answers given and comments made during the group discussion, ensuring the teaching point has been covered.

CONFIRMATION OF TEACHING POINT 3

The cadets' participation in the group discussion will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

QUESTIONS

Q1. What do greenhouse gas emissions affect?

Q2. What are some simple things that may be done to lower greenhouse gas emissions?

Q3. Why are biomedical and chemical wastes dangerous?

ANTICIPATED ANSWERS

A1. Greenhouse gas emissions affect the temperature and climate of the Earth's surface.

A2. Simple things that may be done to lower greenhouse gas emissions include:

- walking or taking public transit instead of driving a vehicle;
- avoiding unnecessary idling of a vehicle;
- driving a hybrid car;
- investing in a programmable thermostat;
- turning down the temperature in the house before going to sleep;
- replacing standard bulbs with fluorescent bulbs; and
- turning off lights when not in the room.

A3. Biomedical waste may be contaminated and chemical waste may be cancer causing.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Through the discussion of local, provincial/territorial and national environmental issues, cadets may gain an understanding of how their individual actions affect the environment. It may inspire them to take personal responsibility for its preservation and restoration which is part of being an environmentally conscious citizen.

INSTRUCTOR NOTES/REMARKS

References for TP1 can be found by investigating the Website for your local, municipality, region and/or province/territory.

REFERENCES

C0-091 The City Of Red Deer. (2007). *Household Tips to Reduce Greenhouse Gas Emissions.* Retrieved 19 February 2007, from http://www.city.red-deer.ab.ca/Keeping+You+Informed/Environmental +Tips+and+Initiatives/Household+Tips+to+Reduce+Greenhouse+Gas+Emissions.htm.

C0-092 The City of Red Deer. (2007). *Household Hazardous Waste.* Retrieved 19 February 2007, from http://www.city.red-deer.ab.ca/Keeping+You+Informed/Environmental+Tips+and+Initiatives/ Household+Hazardous+Waste.htm.

C0-093 Industry Canada. (2007). *Canadian Company Capabilities.* Retrieved 19 February 2007, from http://www.strategis.ic.gc.ca/app/ccc/ search/navigate.do? language=eng&portal=1&subPortal=&estblmntNo=234567041421&profile=completeProfile.

C0-094 Depository Services Program. (2007). *High-Level Radioactive Waste in Canada.* Retrieved 19 February 2007, from http://www.dsp-psd.pwgsc.gc.ca/Collection-R/LoPBdP/BP/bp338-e.htm.

COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 4

EO C201.02 – TOUR A LOCAL MUNICIPAL, PROVINCIAL OR NATIONAL POLITICAL INSTITUTION

Total Time:	90 min

There is no instructional guide provided for this EO.

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COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 5

EO C201.03 – TOUR A LOCAL MUNICIPAL, PROVINCIAL OR NATIONAL ENVIRONMENTAL FACILITY

Total Time:	90 min

There is no instructional guide provided for this EO.

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COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 6

EO C201.04 – PARTICIPATE IN A PRESENTATION GIVEN BY AN ENVIRONMENTAL GUEST SPEAKER

Total Time:	60 min

There is no instructional guide provided for this EO.

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COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 7

EO C201.05 – PARTICIPATE IN A PRESENTATION GIVEN BY A GOVERNMENT REPRESENTATIVE

Total Time:	60 min

There is no instructional guide provided for this EO.

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WHAT ARE MY RIGHTS AS A CANADIAN CITIZEN?

Canadians enjoy the following rights:

- **Equality Rights.** Equal treatment before and under the law, and equal protection and benefit of the law without discrimination.
- **Democratic Rights.** Every citizen has the right to participate in political activities including voting and being elected to political office.
- **Legal Rights.** Every citizen has the right to be presumed innocent until proven guilty, the right to retain a lawyer and to be informed of that right and the right to an interpreter in court proceedings.
- **Mobility Rights.** Every citizen has the right to enter and leave Canada, and to move to and take up residence in any province/territory.
- **Language Rights.** Every citizen has the right to use either the English or French language in communications with the federal government and certain provincial/territorial governments.
- **Minority Language Education Rights.** In general, English and French minorities in every province and territory have the right to be educated in their own language.

WHAT ARE MY RESPONSIBILITIES AS A CANADIAN CITIZEN?

Canadians share common responsibilities. They should:

- understand and obey Canadian laws;
- participate in Canada's democratic political system;
- vote in elections;
- allow other Canadians to enjoy their rights and freedoms; and
- appreciate and help to preserve Canada's multicultural heritage.

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THE GOVERNMENT OF CANADA'S CODE OF ENVIRONMENTAL STEWARDSHIP

To reflect the Government's dedication in all aspects of its operations and activities, it has created the Government of Canada's *Code of Environmental Stewardship*.

The Government commits to:

- incorporating environmental concerns in relevant decisions;
- ensuring environmental considerations are incorporated in purchasing practices;
- applying environmentally responsible practices in disposal;
- meeting or exceeding federal environmental laws;
- reusing, recycling and reducing waste; and
- improving the level of environmental awareness.

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CHAPTER 2
PO 202 – PERFORM COMMUNITY SERVICE

COMMON TRAINING

INSTRUCTIONAL GUIDE

EO M202.01 – PERFORM COMMUNITY SERVICE

Total Time: 270 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to briefing the guest speaker.

The choice of activity is to be left to the discretion of the unit Commanding Officer (CO). Cadets will participate in a community service activity with a service group.

The community service activity should be conducted on one supported day (270 min) or over three separate sessions.

A guest speaker should introduce this lesson. The guest speaker should be made aware of the requirements of this lesson. Ensure that any information not covered is provided to the cadets through a question and answer session following the community service activity. If a guest speaker is unavailable, the instructor should attempt to procure as much information as possible on the selected activity from the community service group.

It is recommended that the guest speaker debrief the cadets following the community service activity.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An experiential approach was chosen for this lesson as it allows the cadets to acquire new knowledge and skills through a direct experience. This approach allows the cadets to experience performing community service and to define that experience at a personal level. They will be given the opportunity to reflect on and examine what they saw, felt, and thought while they were having the experience, and consider how this will relate to future experiences.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall have experienced the benefits of volunteering and the positive impact it has on the community.

IMPORTANCE

It is important for cadets to participate in community service activities as it contributes directly to supporting one of the aims of the Cadet Program—to develop attributes of good citizenship.

BACKGROUND KNOWLEDGE

Community service is defined as activities which help cadets develop attributes of good citizenship. Through active involvement in these activities, cadets will have a positive impact on local communities, contributing to community strength and vibrancy.

One way cadets perform community service is through the service groups in the community. Service groups or clubs aim to promote community welfare and goodwill.

The following is a list of the service groups that may be found in the community.

THE ROYAL CANADIAN LEGION

By the end of WWI there were a total of 15 veterans' groups and a number of regimental associations representing former service members in Canada. Despite their common goal of helping returned servicemen in need, their efforts were fragmented and largely unsuccessful. In 1925, an appeal for unity led to the formation of the Dominion Veterans Alliance, out of which evolved The Canadian Legion of the British Empire Services League the following year.

WWII brought an influx of new demands. The Legion provided canteens, entertainment and reading material for those serving abroad and at home, as well as correspondence courses to help them out on their return to civilian life. But most importantly, from the onset of war, the Legion began to prepare for the returning troops. Financial compensation, clothing allowances, pensions, medical treatment, preference in the civil service, vocational training and land settlements were all routinely arranged and provided. To this day the Legion maintains a nation-wide network of professionals helping veterans, ex-service members and their families to secure the pensions and benefits to which they are entitled.

Although the Legion was founded to advance the cause of veterans, its grass-roots structure led naturally to community service. Almost every Legion branch in Canada is involved in one or more youth programs. It may be sponsoring a local hockey team, a cadet corps or a scout troop. It may be sponsoring youth leadership training or other programs that meet the needs of youth in the community. The Legion wants Canadian youth to know that the freedoms they enjoy did not come without a price. The Legion supports the cadet movement in Canada to promote leadership, fitness and the spirit of patriotism. It also supports the Legion Medal of Excellence, which many branches and commands provide to honour outstanding cadets.

Today, with over 450 000 members, The Royal Canadian Legion is the largest veterans-based community service organization in the country, contributing millions of dollars and voluntary hours to help Canadians, particularly veterans, seniors and youth. Most Canadians associate the Legion with remembrance ceremonies and activities perpetuating the memory of those who died in the two world wars and the Korean War. Probably the most widely known activity is The Poppy and Remembrance Campaign in which Legion members, friends and cadets distribute poppy emblems for donations to raise money for needy veterans, ex-service members and their families.

LIONS CLUB

Since 1917, Lions have served the world's population through hard work and commitment to make a difference in the lives of people everywhere. With 1 436 487 members serving in more than 44 500 clubs in over 180 countries and areas, Lions Clubs International is the world's largest service club organization. Canada alone has over 1900 clubs and over 49 000 members. Lions are recognized worldwide for their service to the blind and visually impaired. The club motto is "We Serve."

Lions International Objectives:

- To create and foster a spirit of understanding among the peoples of the world.
- To promote the principles of good government and good citizenship.
- To take an active interest in the civic, cultural, social and moral welfare of the community.
- To unite the clubs in the bonds of friendship, good fellowship and mutual understanding.
- To provide a forum for the open discussion of all matters of public interest; provided, however, that club members should not debate partisan politics and sectarian religion.
- To encourage service-minded people to serve their community without personal financial reward, and to encourage efficiency and promote high ethical standards in commerce, industry, professions, public works and private endeavours.

ROTARY CLUB

Founded in 1905, by Chicago Lawyer Paul Harris and three business acquaintances, Rotary International is a worldwide organization of more than 1.2 million members, in more than 29 400 clubs in 160 nations. The objective of the Rotary Club is to encourage and foster the ideal of service as a basis of worthy enterprise and, in particular, to encourage and foster:

- the development of acquaintances as an opportunity for service;
- high ethical standards of business and profession;
- the recognition of the worthiness of all useful occupations;
- the dignifying by each Rotarian of their occupation as an opportunity to serve society;
- the application of the ideal of service by every Rotarian to their personal business and community life; and
- the advancement of international understanding, goodwill and peace, through a world fellowship of business and professional persons united in the ideal of service.

A good example of Rotary's work is their partnership with the World Health Organization and the United Nations to immunize all the children of the world against Poliomyelitis – the wild polio virus. To date, a million volunteers mobilized by Rotary have immunized a billion children throughout the developing world. The goal of the Polio Plus campaign was to certify the eradication of Polio by the year 2005 – Rotary's 100th anniversary. In 2005, Rotarians and partners celebrated the tremendous progress made towards polio eradication.

KIWANIS CLUB

The first Kiwanis club was organized in Detroit, Michigan, USA on 21 January 1915. A year later the Kiwanis Club of Hamilton, Ontario, Canada, was chartered, and Kiwanis International grew rapidly into a leading service club in these two founding nations. In 1962, worldwide expansion was approved, and today Kiwanis clubs are active in every part of the world. The club motto is "We Build." There are more than 8500 Kiwanis clubs with more than 315 000 members in 82 nations and geographic areas. Kiwanis' continuing service emphasis is called

“Young Children: Priority One,” which focuses on the special needs of children from prenatal development to age five. Projects conducted as part of the “Young Children: Priority One” service emphasis involved $14.3 million and 1.3 million volunteer hours.

In 1994, Kiwanis launched its first Worldwide Service Project, a $75 million campaign in partnership with UNICEF to eliminate iodine deficiency disorders by the year 2000. Iodine deficiency (IDD) is rare in areas where iodized salt is used, but in other parts of the world, IDD is the leading cause of preventable mental and physical retardation. As many as 1.5 billion people are at risk, especially young children. In 2000, $62 million was raised, and the goal of $75 million was surpassed in 2001.

THE UNITED WAY

The United Way is a non-profit organization that works in partnership with community agencies and organizations. By bringing groups together to share experience and expertise, the United Way is working with others to improve community life. Each year the United Way collects millions of dollars needed for essential health and social services and programs. The money is carefully distributed to meet the greatest need in our community and a rigorous review process ensures that the money is spent effectively.

BOYS AND GIRLS CLUB

The Boys and Girls Club enhances the quality of life for children and youth by providing a safe and welcoming environment. It offers supervised activities, support and counselling for young people aged 6 to 18 years old. They also provide a social service for “at risk youth,” and youth with special needs.

ACTIVITY

Time: 240 min Method: Experiential

OBJECTIVE

The objective of this activity is to assist a service group in the performance of community service.

RESOURCES

N/A.

ACTIVITY LAYOUT

- The cadets are to be briefed prior to the start of the activity by a guest speaker from the service group being assisted, to include an explanation of:
    - the objectives of the activity;
    - resources required;
    - set up of the activity; and
    - safety guidelines while performing the activity (as required).
- Cadets will participate in the activity, under supervision (activity to be determined by the CO).
- The cadets are to be de-briefed on their participation in the activity immediately following the activity.

SAFETY

- Brief the cadets on any safety rules or regulations regarding the activity; and
- Identify any boundaries that may be in place.

INSTRUCTOR GUIDELINES

Make observations on the cadets to include:

- how the cadets reacted to the activity; and
- what area they appeared to enjoy most/least.

Observation of the activity is important so that additional questions can be developed for the reflective stage.

REFLECTION

Time: 30 min Method: Group Discussion

GROUP DISCUSSION

TIPS FOR ANSWERING/FACILITATING DISCUSSION

- Establish ground rules for discussion, e.g. everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Manage time by ensuring the cadets stay on topic.
- Listen and respond in a way that indicates you have heard and understood the cadet. This can be done by paraphrasing their ideas.
- Give the cadets time to respond to your questions.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer. Cadets must also have the option to pass if they wish.
- Additional questions should be prepared ahead of time.

SUGGESTED QUESTIONS

Q1. How did you feel about the activity?

Q2. What did you feel you accomplished?

Q3. What benefit did the community receive from your participation?

Q4. In what other ways can you be a more active citizen based on this experience?

Other questions and answers will develop throughout the group discussion. The discussion should not be limited to only those suggested.

CONCLUSION

REVIEW

Upon completion of the group discussion the instructor will conclude by summarizing the discussion to ensure that all teaching points have been covered. Take this opportunity to explain how the cadet will apply this knowledge and/or skill in the future.

TEACHING POINTS

TP1. Provide a direct benefit to the community (e.g. support, of a non-profit group's fundraising event, community cleanup, and trail maintenance project).

TP2. Promote citizenship attributes.

Reinforce those answers given and comments made during reflection, but ensure that the teaching points have been covered. Any teaching point not brought out during the group discussion shall be covered during review.

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

The Canadian Cadet Movement (CCM) strives to develop in youth the attributes of good citizenship. Actively participating in the community provides a cadet with the chance to assist members of the community, thus demonstrating those same attributes. Cadets are encouraged to seek out additional, more personal, ways to assist in the community.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

A0-010 CATO 11-03 D Cdts 2. (2006). *Cadet Program Mandate.* Ottawa, ON: Department of National Defence.

C0-014 The Royal Canadian Legion. (2002). *The Royal Canadian Legion: Responding to the Needs of Canadian Communities.* Retrieved 25 May 2006, from http://www.legion.ca/asp/docs/about/community_e.asp.

C0-015 Kiwanis International. (2006). *About Kiwanis.* Retrieved 25 May 2006, from http://www.kiwanis.org/about.

C0-016 Lions Club International. (2006). *Lions Clubs International History.* Retrieved 25 May 2006, from http://www.lionsclubs.org/en/content/lions_history.shtml.

C0-017 Rotary International. (2005). *About Rotary.* Retrieved 25 May 2006, from http://www.rotary.org/aboutrotary/index.html.

C0-044 UNESCO. (2006). *Canadian Commission for UNESCO.* Retrieved 16 August 2006, from http://www.unesco.ca.

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CHAPTER 3

PO 203 – DEMONSTRATE LEADERSHIP ATTRIBUTES WITHIN A PEER SETTING

COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 1

EO M203.01 – DISCUSS LEADERSHIP WITHIN A PEER SETTING

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

The list of responsibilities of Red Star cadets will vary for each corps. Information about the specific responsibilities should be available in the corps Standing Orders or by speaking to the corps Commanding Officer/Training Officer.

Photocopy the handout at Annex A, one for each cadet.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TP1 to orient the cadets to leadership within a peer setting, to generate interest and to present basic material.

An in-class activity was chosen for TP2 as an interactive way to provoke thought, stimulate an interest among cadets and present leadership within a peer setting.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to discuss leadership within a peer setting.

IMPORTANCE

It is important for cadets to learn about leadership within a peer setting because there are responsibilities for second year cadets. Being aware of the responsibilities second year cadets perform will assist them in setting achievable goals and adapting to their new role as leaders in the corps.

Teaching Point 1 **Explain Leadership Within a Peer Setting**

Time: 15 min Method: Interactive Lecture

Within junior leadership, there are responsibilities for a Red Star cadet at the corps. To make the second year of cadets a fun, challenging and dynamic experience, second year cadets should know their responsibilities.

Have cadets brainstorm a list of what they think the responsibilities of a Red Star cadet are. As you teach each of the following points, try to match them to the cadet generated list.

There are some responsibilities common to every Red Star cadet in the corps. They are:

- **Following the Chain of Command.** Following the chain of command ensures that all information that must be passed up and down the chain is delivered. Following the chain of command prevents gaps in the information flow.
- **Setting the Example.** A Red Star cadet must set a personal example in dress and deportment. A good leader will never ask more of their followers and teammates than they are willing to give themselves.
- **Being Firm, Fair and Friendly with Everyone, Especially New Recruits.** No one is impressed with a Red Star cadet who yells, least of all new cadets. A highly influential and respected Red Star cadet is one who is consistent in their approach to people and each situation. Being approachable at all times should enable the cadet to fulfill all duties and responsibilities in an effective manner.
- **Being Respectful to Superiors and Subordinates.** Using a proper tone of voice, looking people in the eyes when they speak and standing up straight is a physical way to show respect. If the Red Star cadet wishes to be treated with respect, they must display respect toward others.
- **Being Aware of Safety Hazards.**
- **Displaying Initiative.** Undertaking small matters, like cleaning up, before being told to do so is an example of using initiative. Superiors notice when small tasks are completed without any request to do so.
- **Setting Goals.** Every leader needs to set goals. Goals allow people the opportunity to turn ideas into results. A goal is a glimpse of the future. Setting goals like improving their drill, dress and deportment, gives Red Star cadets something to strive for. By setting goals, and working towards them, a Red Star cadet will show commitment.

If the corps has no specific duties for Red Star cadets, do not teach the following point.

There are specific responsibilities of a Red Star cadet in this corps.

Explain the corps specific Red Star cadet responsibilities.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. List the responsibilities of Red Star cadets in the corps.

Q2. Why is setting goals important for a Red Star cadet?

Q3. List the specific Red Star cadet duties and responsibilities for your corps.

ANTICIPATED ANSWERS

A1. The responsibilities of every Red Star cadet in the corps are:

- following the chain of command;
- setting the example;
- being firm, fair and friendly with everyone, especially new recruits;
- being respectful towards your superiors and subordinates;
- being aware of safety hazards;
- displaying initiative; and
- setting goals.

A2. By setting goals and working towards them, the Red Star cadet will show commitment.

A3. Answers will vary.

Teaching Point 2 **Conduct a Goal Mapping Activity**

Time: 10 min Method: In-class Activity

ACTIVITY

OBJECTIVE

The objective of this activity is to have cadets map out personal short-term goals achievable at the corps and personal long-term goals for the training year.

RESOURCES

- Flip chart paper,
- Markers, and
- Goal mapping template located at Annex A.

ACTIVITY LAYOUT

Divide the class into groups of no more than six cadets.

ACTIVITY INSTRUCTIONS

For this in-class activity, short-term goals are goals that can be achieved within three months, and long-term goals are goals that can be achieved by the end of the Red Star Program.

Have cadets, in groups of no more than six, brainstorm, then generate a list on flipchart paper, of personal short-term goals, in order to fulfill their Red Star responsibilities, such as:

- improving their uniform;
- improving their drill; and
- attending all parade nights for the next three months, etc.

Record all the cadet generated short-term goals on a whiteboard/flipchart/OHP so cadets may use the examples.

Have cadets, in groups of no more than six, brainstorm, then generate a list on flipchart paper, of personal long-term goals for the training year, such as:

- getting promoted;
- achieving perfect attendance; and
- attending summer training, etc.

Record all the cadet generated long-term goals on a whiteboard/flipchart/OHP so cadets may use the examples.

Distribute the goal recording sheet located at Annex A. Have the cadets write down two short-term and two long-term personal goals and the steps involved in achieving those goals. These goals may be from the generated list, or they may be completely individual.

After the activity is complete, have the cadets hand in their list of goals. Make a copy to file in each cadet's training file. These lists of goals may be used for periodic interviews by the Red Star Officer to see if cadets met their goals. The list of goals may also be used at the beginning of the next training year to assist cadets in creating goals for Silver Star Program.

Return the original copy of the short-term and long-term goals to the cadet. Encourage cadets to post their personal short-term and long-term goals in a visible place at home, so cadets will be reminded of the goals they have set and whether they are moving towards achieving them.

SAFETY

N/A.

END OF LESSON CONFIRMATION

The cadets' participation in TP1 and TP2 will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

In order for a cadet to be successful in the role of a Red Star, they must know their responsibilities. By setting personal short and long term goals, cadets have something to work toward and may be more motivated to complete the tasks ahead.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

C0-022 (ISBN 0-02864-207-4) Cole, K. (2002). *The Complete Idiot's Guide to Clear Communication.* Indianapolis, IN: Alpha Books.

C0-134 (ISBN 0-7852-7440-5) Maxwell, J. (1999). *The 21 Indispensable Qualities of a Leader: Becoming the Person Others Will Want to Follow.* Nashville, TN: Thomas Nelson Publishers.

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COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 2

EO M203.02 – DISCUSS THE PRINCIPLES OF LEADERSHIP

Total Time:	30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TP1 and TP2 to orient the cadets to the principles of leadership, to generate interest and to present basic material.

A group discussion was chosen for TP3 as it allows the cadets to interact with their peers and share their knowledge, experiences, opinions and feelings about leaders who display positive influence.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to discuss the principles of leadership.

IMPORTANCE

It is important for cadets to learn the principles of leadership because they are fundamentals of leadership theory. As listed in CATO 11-03, *Cadet Program Mandate*, leadership is inherent in the participant outcomes of social competence and it is one of the three aims of the Cadet Program.

Teaching Point 1 **Discuss the Principles of Leadership**

Time: 5 min Method: Interactive Lecture

Leadership is a demonstrable skill. This means it can be displayed and observed. Leadership can be learned and the skills involved can be improved with practice. Within leadership there are set of principles that may be used to improve leadership ability.

PRINCIPLES OF LEADERSHIP

Leadership is influence

The ability to influence others is fundamental within the leadership process. Everyone influences someone. People are influenced by those around them on a daily basis: friends, family, teachers, newsmakers, athletes, etc. all influence others. In turn, those same people are influenced.

Influence can be positive or negative

There are many people who use their influence in a positive manner and while doing so help their community, their school, their family, and the world around them. There are some people who use their influence in a negative manner and while doing so do not help anyone including themselves.

Leadership can create opportunities in life

Qualities of leadership are learned and practiced, therefore improving your ability to lead may create opportunities in life. Throughout the Cadet Program, cadets may be given many occasions to lead. Success in a leadership role may lead to greater leadership opportunities with bigger challenges, more responsibility, rewards, etc.

Ask cadets what occupations they know of in which leadership skills would be an asset.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. Why is leadership a demonstrable skill?

Q2. Name the three principles of leadership discussed during the class.

Q3. Success in a leadership role may lead to what?

ANTICIPATED ANSWERS

A1. Leadership can be displayed and observed by you and by others.

A2. The three principles of leadership discussed are:

- Leadership is influence.
- Influence can be positive or negative.
- Leadership can create opportunities in life.

A3. Success in a leadership role may lead to greater leadership opportunities with bigger challenges, more responsibility, rewards, etc.

Teaching Point 2 **Share a Brief Narrative of Youth Who Have Influenced the Environment or their Community**

Time: 10 min Method: Interactive Lecture

Choose one of the following four narratives to read to the class.

SIMON JACKSON

When he was seven, Simon Jackson's parents took him from his home in Vancouver, British Columbia to Yellowstone National Park in the United States. Ever since then he has been fascinated with bears. "I came to realize that humans had an option - we had the power to destroy or preserve these magnificent monarchs of the wilderness," says Simon. He set up a lemonade stand in grade two and raised $60 to protect grizzly bears. A few years later Simon heard about Kermode bears. "I have followed a dream to ensure wild bears a wild place for generations to come." Simon Jackson is one of the few people to have seen the white Kermode or Spirit bear. If things go his way, Simon won't be the last. Simon is doing all he can to save these rare bears from becoming extinct. Loggers want to take trees from the ancient rainforest where they live. Simon has been trying to save the bears for years now. Simon speaks at schools to spread the word about the bears. He persuaded 700 kids to write letters asking the BC government to keep logging companies out of the bear's habitat. In 1996, the government received more letters about the Kermode bear than any other preservation issue. Simon also started the Spirit Bear Youth Coalition. "Many people ask me why I chose to campaign for the future of the spirit bear rather than other endangered animals such as the panda or the elephant," Simon explains. "As I saw it, the spirit bear was as unique to the world as the panda bear is to China and lived only in my home province. This bear, I thought, deserved our admiration, respect and most of all, our protection. I knew I had to help." Simon works with naturalist Jane Goodall, scientist David Suzuki, Native Leader Chief Leonard George and artist Robert Bateman. All of them are trying to save the last of about 100 Kermode bears which live around the Terrace area of BC and Princess Royal Island. So far, the support from tens of thousands of people from around the world helped to protect 135 000 hectares from loggers. Simon hopes the Spirit Bear Youth Coalition will be able to protect the remaining 125 000 hectares for the Kermode bears. "It is like ripples in a pond. If I can get through to one person, that person will get to another," he says. "That is how issues are won." Time magazine named Simon Hero of the Planet – one of six young people selected from around the world in their Spring 2000 edition.

CRAIG KIELBURGER

Craig Kielburger was born 17 December 1982 in Thornhill, Ontario, and is an accomplished child rights advocate and leadership specialist, an award-winning author and a popular speaker. He is the founder of Free The Children, the world's largest network of children helping children through education, and the co-founder of Leaders Today, the world's top youth leadership training organization. When Craig was 12, he was shocked to learn about the murder of a child labourer-turned-child rights activist. Eager to take action, he established Free The Children to help free children from poverty, exploitation and powerlessness. The organization began as a small group of classmates and quickly evolved into an international phenomenon. Under Craig's leadership, Free The Children has now changed the lives of more than one million young people around the world. The organization has built more than 450 primary schools, providing daily education to more than 40 000 children. Free The Children's many accomplishments in the areas of education, alternative income, health care, water and sanitation provision and peace building have earned three Nobel Peace Prize nominations and facilitated

high profile partnerships with organizations such as the United Nations and Oprah's Angel Network. Convinced of the importance of leadership development in empowering youth, Craig co-founded Leaders Today in 1999. Leaders Today empowers young people through leadership education, providing them with the inspiration and tools to affect positive social change. The organization delivers one-of-a-kind local and international training experiences, reaching more than 350 000 youth every year. Craig has travelled to more than 50 countries, visiting underprivileged children and speaking out in defence of children's rights. An internationally renowned speaker, Craig frequently addresses business groups, government bodies, educators, unions and students. A sought-after speaker, he has shared the podium a number of times with former U.S. president Bill Clinton, as well as with such world renowned leaders as Nelson Mandela, Queen Noor, Archbishop Desmond Tutu and the Dalai Lama. Craig has shown the world that no one is ever too young to make a difference. His work has been featured on The Oprah Winfrey Show, CNN, CBC, BBC, 60 Minutes and profiled in The Economist, Time and People magazines and numerous newspapers.

THE GREENKIDS

GreenKids was established during 1990-1991 school year by the sixth grade students in Lafayette Regional School in rural Franconia, New Hampshire. It started as a part of an integrated subject, Critical Skills L.B.R.P. (Learning By Real Problems). The students knew of an absence of children's environmental projects in New England and they wanted to alleviate the problem of the environment. The first group of students, First Generation GreenKids, brainstormed and came up with a list of goals that they hoped to achieve during the school year. Goals included establishing the group, writing a Book of Issues, For Kids by Kids, having it published, writing quarterly newsletters, promoting recycling and responsible environmental attitudes throughout the area and finally, showing that adults will listen to the opinions of children when their opinions are presented intelligently. These lofty goals might seem impossible for a group of 11 and 12 year olds, but through hard work and empowerment they realized all but one of their goals: that of getting their book published. The First Generation succeeded in producing a quality newsletter, and parts of it were featured in the quarterly newsletter of the New Hampshire Wildlife Federation. They researched, edited, and entered their product into a word processor, developed a group of subscribers, and helped pay for materials. The book was based on environmental issues which they felt were very important. They followed the same processes in publishing the book as they did in creating the newsletter. Their work was high quality. GreenKids also had the opportunity to visit other schools to talk about their experiences and to help start their own activist groups. Letters were written to persons in power to expand recycling. But the year was ending and the completed, illustrated book was not yet published. GreenKids Second Generation decided to make these goals its yearly objective: keep the newsletter going; get the school to recycle; buy trees for all nursery school and Kindergarten through grade 5 students; promote community cleanups; and raise funds to publish the book.

KIDS FOR A CLEAN ENVIRONMENT

In 1989, Melissa Poe, a fourth grader in Nashville, Tennessee, founded a children's environmental club called Kids For A Clean Environment or Kids F.A.C.E. In three years the club had grown from a group of six within her elementary school to a positive, proactive international youth organization with more than 200 000 members. She also wrote for the newsletter she created for her club, which had a worldwide distribution of 2 million. In August 1989, Melissa began an ongoing campaign to encourage children and adults to become involved with the protection of our natural resources. Kids F.A.C.E. started when Melissa wrote a letter to the President of the United States. Dissatisfied with the President's initial response, she decided to take action on her own. In January of 1990, she appeared on NBC's Today show after writing a letter requesting an appearance. In April of 1990, 250 billboards were placed nationwide with her letter to the President. She also began speaking to encourage children to get involved, and she established chapters of Kids F.A.C.E. In May 1990, she wrote a letter to Wal-Mart Corporation asking for help for her club, and in November 1990, Melissa created her club newsletter: Kids F.A.C.E. Illustrated. In October 1991, she drafted the Children's Forest concepts with another organization and prepared and circulated petitions. In September 1992, she launched Kids F.A.C.E. Save-A-Tree project with tree-planting programs. In January 1993, she created the design for International Kid's Earth Flag and began the campaign to get kids to help make the flag. Kids For A Clean Environment is an international children's environmental organization whose purpose is to sponsor educational, community-wide

programs in order to further children's involvement in environmental causes; to present information to children concerning the environment and the detrimental effects of pollution and waste on the environment; and to sponsor membership organizations designed to heighten awareness of hazards to the environment and ways of curbing such hazards.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. How do cadets feel about the person or people in the narrative?

Q2. Do cadets feel these leaders were using the principles of leadership discussed in TP1?

Q3. How were these principles used?

ANTICIPATED ANSWERS

A1. Answers will vary.

A2. Answers will vary.

A3. Answers will vary.

Teaching Point 3 **Discuss a Peer Leader Who has Influenced the Environment or the Community in a Positive Way**

Time: 10 min Method: Group Discussion

BACKGROUND KNOWLEDGE

The point of the group discussion is to draw the following information from the group using the tips for answering/facilitating discussion and the suggested questions provided.

GROUP DISCUSSION

TIPS FOR ANSWERING/FACILITATING DISCUSSION

- Establish ground rules for discussion, e.g. everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Manage time by ensuring the cadets stay on topic.
- Listen and respond in a way that indicates you have heard and understood the cadet. This can be done by paraphrasing their ideas.
- Give the cadets time to respond to your questions.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer. Cadets must also have the option to pass if they wish.
- Additional questions should be prepared ahead of time.

SUGGESTED QUESTIONS

Q1. Describe what types of things could be considered being a positive influence in their community.

Q2. Describe a situation where their peers have used their influence to help the environment or to help their community.

Q3. Describe a situation where they have used their influence to help the environment or to help their community.

Q4. Describe what types of things youth at their age level could do in their community to be a positive influence.

Other questions and answers will develop throughout the group discussion. The group discussion should not be limited to only those suggested.

Reinforce those answers given and comments made during the group discussion, ensuring the teaching point has been covered.

END OF LESSON CONFIRMATION

The cadets' participation in the group discussion in TP3 will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Throughout the Cadet Program, cadets may be given many occasions to lead. To improve their leadership ability, cadets may incorporate the principles of leadership into their own leadership style. Cadets may learn from the situations discussed that they are never too young to use their influence in a positive manner.

INSTRUCTOR NOTES/REMARKS

Instructors are encouraged to research recent newsworthy articles of youth in the area that have positively influenced the environment or their community, to share as in-class stories.

REFERENCES

A0-010 CATO 11-03 D Cdts 2. (2006). *Cadet Program Mandate.* Ottawa, ON: Department of National Defence.

C0-112 (ISBN 0-8407-6744-7) Maxwell, J. C. (1993). *Developing the Leader Within You.* Nashville, Tennessee: Thomas Nelson Inc. Publishers.

C0-113 (ISBN 1-882664-12-4) Karnes, F. A. & Bean, S. M. (1995). *Leadership for Students: A Practical Guide for Ages 8-18.* Waco, Texas: Prufrock Press.

C0-131 Free The Children. (2007). *Craig Kielburger Biography.* Retrieved 13 March 2007, from http://www.freethechildren.com/aboutus/craigmarc/craigkielburger.htm.

C0-132 Kidz World. (2007). *Teen Protects White Bear.* Retrieved 13 March 2007, from http://www.kidzworld.com/article/1065-teen-protects-white-bear.

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COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 3

EO M203.03 – DISCUSS EFFECTIVE COMMUNICATION IN A PEER SETTING

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for this lesson to orient the cadets to effective communication in a peer setting, to generate interest and to present basic material.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall discuss effective communication in a peer setting.

IMPORTANCE

It is important for cadets to learn effective communication in a peer setting to continue to improve their leadership skills. Effectively communicating in a peer setting may improve the leadership skills of cadets because communication is the most basic way to influence others. Effective communication may be used to resolve and/or reduce problems and conflict. By experiencing the benefits of effective communication in a peer setting, cadets may enhance their self-confidence and self-esteem.

Teaching Point 1 **Discuss How Communication Is Fundamental to Influencing Others**

Time: 10 min Method: Interactive Lecture

Effective communication is a critical skill for leaders in a peer setting. Communication is the exchange of thoughts, messages and information. It is the process of sharing knowledge, interests, attitudes, opinions, feelings and ideas with others. Through communication one person can influence others. Effective communication may also be used to resolve and/or reduce problems and conflict.

COMMUNICATION IS A SKILL

Like any skill, the ability to communicate with competence must be learned and developed over a lifetime. Communication skills permit the flow of ideas from one individual to another or to a group, and vice versa. The process of communication can include both verbal and non-verbal messages.

NON-VERBAL COMMUNICATION

Non-verbal communication uses many channels for sending and receiving information. Information is received through all our senses (taste, sight, smell, touch and sound). Some aspects of non-verbal communication include:

Eye Contact. Looking directly at another person when speaking is an effective way of indicating sincerity and getting someone's attention.

Body Posture. The weight of the message being sent will be increased when facing the person being spoken to, standing or sitting closer to them and leaning forward. Using correct body posture when listening is also an effective way of indicating interest in the conversation.

Gestures. A message that has a body gesture attached to it takes on added emphasis.

Facial Expressions. When making a statement, make sure facial expressions agree with the message.

Voice Tone, Volume Changes. Shouting may cause people to become defensive, just a whispering may cause people to tune out the message. Make sure voice levels are correct for the space and that statements are convincing without being intimidating.

Being able to read non-verbal responses to communication, while leading in a peer setting, may help cadets understand how they are being perceived.

SENDING, RECEIVING AND RESPONDING TO A MESSAGE

Communication consists of three things: sending, receiving and responding to a message.

The sender must deliver a clear message, taking into consideration the characteristics of the individual(s) receiving the message. Is the person a child or an adult? Is there one person, or are there 20? These and similar factors all determine how the message should be sent.

Next, the message is received. It is important to remember that receivers translate what they have heard based on their own set of definitions, which may differ greatly for those of the sender.

The final component of communication is response. A response lets the sender know the message has been received. All three parts are necessary for effective communication.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. Why are communication skills a fundamental part of leadership?

Q2. List some aspects of non-verbal communication.

Q3. Communication consists of three things, name them.

ANTICIPATED ANSWERS

A1. Communication skills are a fundamental part of leadership because they permit the flow of ideas from one individual to another or to a group, and vice versa.

A2. Some aspects of non-verbal communication include:

- eye contact,
- body posture,
- gestures,
- facial expressions, and
- voice tone, volume changes.

A3. Communication consists of three things: sending, receiving and responding to a message.

Teaching Point 2 **Explain the Three Styles of Communication**

Time: 5 min Method: Interactive Lecture

THREE STYLES OF COMMUNICATION

Aggressive Communication. A person who is an aggressive communicator puts their own wants and needs ahead of everyone else and they often ignore or belittle other people's concerns.

Aggressive communicators often:

- talk over people and interrupt;
- make sarcastic, demeaning or threatening remarks;
- consider only their own point of view; or
- stand too close, lean over you or in some other way make you feel physically uncomfortable.

Aggressive communication usually leads to hostility, anger and resentment.

Passive Communication. A person who is a passive communicator puts other people's wants and needs ahead of their own and often denies what they want or need.

Passive communicators often:

- hardly ever say what they want or need;
- let others make decisions for them;

- avoid conflict and disagreement at all costs; and
- drop hints rather than directly request that something gets done.

Passive communication usually leads to bad feelings and damages relationships.

Assertive Communication. A person who is an assertive communicator uses skills based on mutual respect. Assertive communicators can say how they see things and hear how others see things. They work towards outcomes that satisfy everyone.

Assertive communicators often:

- are open and honest about what they are thinking and feeling;
- make direct requests if they want something done, leaving the option to say “no”;
- respect themselves and show respect to others; and
- are able to disagree without creating bad feelings.

Assertive communication usually results in clear and open communication.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. Name the three styles of communication.

Q2. What are some characteristics of assertive communicators?

Q3. Assertive communication usually results in what?

ANTICIPATED ANSWERS

A1. The three styles of communication are aggressive, passive and assertive.

A2. Assertive communicators often:

- are open and honest about what they are thinking and feeling;
- makes direct requests if they want something done, leaving the option to say “no”;
- respect themselves and show respect to others; and
- are able to disagree without creating bad feelings.

A3. Assertive communication usually results in clear and open communication.

Teaching Point 3 **Discuss Assertive Communication**

Time: 10 min Method: Interactive Lecture

Assertive people use a number of important communication skills. They ask questions to gather information and check that they have understood correctly. Assertive people say what is on their mind in a direct yet courteous way so there is no hidden message.

USING "I" STATEMENTS

One of the most important skills that an assertive communicator uses is making "I" statements. Assertive people use "I" language. An assertive communicator uses statements like "I'd like…", "I'd appreciate…", "I think…." and "I feel"… etc. They own their own messages and speak for themselves. Their suggestions are not weighted with advice, commands, and "shoulds" or "oughts". Their feedback is constructive and free from blame.

Non-verbally assertive people:

- make appropriate eye contact;
- sit or stand comfortably erect;
- use open gestures to support their comments;
- speak in a clear, steady, firm tone of voice; and
- maintain open, unchanging and relaxed facial expressions that accurately reflect their thoughts.

ACTIVE LISTENING SKILLS

Assertive people also use active listening skills. These skills include:

- repeating the conversation back to the speaker, in their own words, to understand the speakers meaning;
- not talking about themselves;
- letting the speaker take the lead by encouraging them back to the issue if the speaker digresses;
- concentrating fully on what the speaker is saying;
- asking for clarification if it is needed;
- acknowledging the speaker's feelings; and
- allowing for silence.

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

Q1. Give three examples of "I" statements.

Q2. Give some examples of non-verbal communication used by assertive people.

Q3. Give some examples of active listening skills.

ANTICIPATED ANSWERS

A1. "I'd like…", "I'd appreciate…", "I think…" and "I feel"… etc.

A2. Non-verbally assertive people:

- make appropriate eye contact;
- sit or stand comfortably erect;
- use open gestures to support their comments;

- speak in a clear, steady, firm tone of voice; and
- maintain open, unchanging and relaxed facial expressions that accurately reflect their thoughts.

A3. Active listening skills include:

- repeating the conversation back to the speaker, in their own words, to understand the speakers meaning;
- not talking about themselves;
- letting the speaker take the lead by encouraging them back to the issue if the speaker digresses;
- concentrating fully on what the speaker is saying;
- asking for clarification if it is needed;
- acknowledging the speaker's feelings; and
- allowing for silence.

END OF LESSON CONFIRMATION

QUESTIONS

Q1. Communication consists of three things; name them.

Q2. What are some characteristics of assertive communicators?

Q3. Why do assertive people use "I" statements?

ANTICIPATED ANSWERS

A1. Communication consists of three things: sending, receiving and responding to a message.

A2. Assertive communicators often:

- are open and honest about what they are thinking and feeling;
- makes direct requests if they want something done, leaving the option to say "no";
- respect themselves and show respect to others; and
- are able to disagree without creating bad feelings.

A3. Assertive people use "I" statements because they own their own messages and speak for themselves.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Effective communication is a critical talent for leaders. Effectively communicating in a peer setting may improve the leadership skills of cadets because communication is the most basic way to influence others. Using their influence in a peer setting, cadets may resolve and/or reduce problems and conflict and it may enhance cadets' self-confidence and self-esteem.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

C0-022 (ISBN 0-02864-207-4) Cole, K. (2002). *The Complete Idiots Guide to Clear Communications.* Indianapolis, IN: Pearson Education, Inc.

C0-115 (ISBN 0-7879-4059-3) Van Linden, J. A. & Fertman, C. I. (1998). *Youth Leadership.* San Francisco, California: Jossey-Bass Inc.

C0-144 Colver, E. & Reid, M. (2001). *Peacebuilders 2: Peer Helping.* Ottawa, ON: YouCAN.

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COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 4

EO M203.04 – DEMONSTRATE POSITIVE GROUP DYNAMICS

Total Time: 60 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

A group discussion was chosen for TP1 as it allows the cadets to interact with their peers and share their knowledge, experiences, opinions, and feelings about positive group dynamics.

An interactive lecture was chosen for TP2 to orient the cadets to positive group dynamics, to generate interest and to present basic material.

An in-class activity was chosen for TP3 as an interactive way to provoke thought and stimulate interest among cadets.

INTRODUCTION

REVIEW

The review for this lesson will be from EO M103.03 (Participate in Team-Building Activities).

QUESTIONS

Q1. What are the characteristics of a successful team?

Q2. What are the advantages of effective teamwork?

ANTICIPATED ANSWERS

A1. The characteristics of a successful team are:

- clear communication,

- mutual cooperation and support,
- share a common goal, and
- high esprit de corps.

A2. The advantages of effective teamwork are:

- everyone is included ensuring a better outcome;
- tasks are often easier when more people are involved; and
- communication skills are developed.

Write down the characteristics of a successful team and advantages of effective teamwork on a whiteboard/flipchart/OHP.

OBJECTIVES

By the end of this lesson the cadet shall be expected to demonstrate positive group dynamics.

IMPORTANCE

It is important for cadets to learn about positive group dynamics to continue to improve their leadership skills. By experiencing the benefits of working as a supportive and encouraging team member in a peer setting, cadets may enhance their self-confidence and self-esteem.

Teaching Point 1 **Discuss Positive Group Dynamics**

Time: 10 min Method: Group Discussion

BACKGROUND KNOWLEDGE

The point of the group discussion is to draw the following information from the group using the tips for answering/facilitating discussion and the suggested questions provided.

According to “Youth Leadership”, as individuals begin to work in groups, they discover that there are patterns of group development; they learn that all groups develop in predictable ways. Information about group development and dynamics dispels myths about groups. One myth many cadets believe is that “nobody feels the way I do.” Feelings of isolation and detachment are common among individuals who enter a new group. As cadets learn more about the tasks necessary for groups to evolve, they discover that there is more to forming a positively functioning group than just bringing people together.

Cadets learn why people have come to the group. Through activities, cadets share what they are feeling and why they are there. As cadets discover how groups operate and as they learn about the kinds of forces that exist within groups, they begin to understand how they fit into their own group.

In order for a peer group or team to perform at its highest level, each member of the team should display positive group dynamics. To demonstrate positive group dynamics, group members should:

- contribute to the group's goal;
- exhibit trust in the group;
- create a safe environment for others to share their opinions;
- follow the leader;
- finish the task;
- display esprit de corps; and
- appreciate others within the group.

GROUP DISCUSSION

TIPS FOR ANSWERING/FACILITATING DISCUSSION

- Establish ground rules for discussion, e.g. everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Manage time by ensuring the cadets stay on topic.
- Listen and respond in a way that indicates you have heard and understood the cadet. This can be done by paraphrasing their ideas.
- Give the cadets time to respond to your questions.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer. Cadets must also have the option to pass if they wish.
- Additional questions should be prepared ahead of time.

SUGGESTED QUESTIONS

Q1. What attributes must a cadet display within the team, to help the team be successful?

Have cadets brainstorm a list of the attributes that enable positive group dynamics. Copy the list on a whiteboard/flipchart/OHP.

Q2. Are there some attributes that contribute more to the success of the team than other attributes? Why or why not?

Q3. Besides cadets, where else would these attributes be advantageous in a peer setting?

The attributes brainstormed by the cadets may not match the attributes in the background knowledge. Correct cadets during the discussion if the attributes suggested do not match the criteria for positive group dynamics.

Other questions and answers will develop throughout the group discussion. The group discussion should not be limited to only those suggested.

Reinforce those answers given and comments made during the group discussion, ensuring the teaching point has been covered.

CONFIRMATION OF TEACHING POINT 1

The cadets' participation in the group discussion will serve as confirmation of this TP.

Teaching Point 2 **Explain How to Display Positive Group Dynamics**

Time: 25 min Method: Interactive Lecture

When placed within a peer setting, each cadet should display positive group dynamics.

After explaining each point below, have cadets give examples of when they have seen the attribute displayed.

To display positive group dynamics, cadets must:

- Contribute to group discussions by providing input. This means contributing to every discussion. Even if a cadet has no new or original ideas, agree or disagree with other member's suggestions. Ask questions. Offer support and volunteer to take on extra assignments.
- Be motivated. Be enthusiastic and ensure the best effort each time when working in a team setting.
- Participate in establishing the team's goals. Cadets will have to work to meet the team's goals, so cadets should have a say in determining them. Ensure group goals are consistent with the aims of the cadet organization.
- Try new things. Do not be afraid to take risks. Trying new things shows courage, and courage is a leadership quality. Remember the turtle: it is perfectly safe when it stays in its shell, but to move ahead, the turtle must stick its neck and feet out.

- Be sensitive to other points of view. Listen to the opinions of other team members. Do not be afraid to express your view even if it is different or even the opposite of everybody else's. Deal respectfully with teammates who disagree. Be willing to compromise to achieve a consensus.
- Know teammates' strengths and weaknesses. If members know their teammates' talents and limitations, it enables the team to use all its personnel to its best advantage. Being aware of teammates individual habits may make working with them easier.
- Increase self-confidence through positive self-talk. Focusing on one's positive characteristics leads to increased self-confidence. To feel better about yourself, concentrate on the things done well and compliment yourself on those things. This is not always easy.
- Be cooperative. Be polite, be a team player, and support your teammates. Help them by distributing work evenly and by sharing information; do not compete.
- Resolve conflicts as quickly as possible at the lowest and most appropriate level. As mentioned in the CHAP program, if teammates have a conflict, find a solution. Do not let problems fester and do not hold a grudge. Once conflicts are resolved, let them go.
- Celebrate successes. When the team completes a task or completes a goal, share in the enjoyment. Have a quick team meeting and compliment all team members on a job well done. Praise team members in front of others. Show appreciation to teammates who have been especially helpful. Everyone likes to be congratulated. This may lead to increased feelings of enthusiasm and self-confidence by members of the team.

Compare the list of attitubutes developed during the group discussion with the attributes taught in TP2.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. How can cadets contribute to group discussions?

Q2. Why should cadets not be afraid to try new things within a team setting?

Q3. Why should successes be celebrated?

ANTICIPATED ANSWERS

A1. Cadets can contribute to group discussions by providing input. This means contributing to every discussion.

A2. Trying new things shows initiative, and initiative is a leadership quality.

A3. Successes should be celebrated because everyone likes to be congratulated. This may lead to increased feelings of enthusiasm and self-confidence by members of the team.

Teaching Point 3 **Demonstrate Positive Group Dynamics**

Time: 15 min Method: In-class Activity

It is very difficult to find an activity that will display all the aspects of positive group dynamics at once. This activity was chosen to give cadets the opportunity to be sensitive to other points of view, to listen without interrupting, to learn their teammates' strengths and weaknesses and to increase their self-confidence through positive self-talk.

ACTIVITY

OBJECTIVE

The objective of this activity is to have cadets demonstrate positive group dynamics within a peer setting to build mutual support and trust.

RESOURCES

N/A.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

Remind cadets that the ability to build mutual trust is based on being able to communicate openly with members of the team.

1. Ask the cadets to find a partner, preferably someone they do not know well, or someone they would like to know better.
2. Have the cadets sit facing each other.
3. Have the cadets decide who will go first. Tell them to make eye contact with one another and get comfortable. Cadets must maintain an open body posture (no crossing of the arms or legs and no slouching). Cadets must tell their partners "What I like about myself." Cadets must speak for two minutes.
4. The passive partner cannot say a word, but through body language, (head nodding, leaning forward, smiling, etc.) must express a keen interest in what is being said.
5. At the end of two minutes, have the cadets switch roles and repeat the speaking/listening exercise.
6. Have cadets switch back to their original positions. Tell them to make eye contact with one another and get comfortable. Cadets must maintain an open body posture (no crossing of the arms or legs and no slouching). Have the first cadet speak about "What I don't like about myself". Cadets must speak for one minute.
7. The passive partner cannot say a word, but through body language, (head nodding, leaning forward, smiling, etc.) must express a keen interest in what is being said.

8. At the end of one minute, have cadets switch roles and repeat the speaking/listening exercise.

9. After everyone is finished speaking/listening, conduct a short de-brief with the cadets to include the following questions:

   - Was it difficult to remain passive, silent and interested?
   - Was it easier to listen to another cadet speaking about their strengths or their weaknesses? Why?
   - Was it easier to speak about their own strengths or their own weaknesses? Why?
   - Did having the listener show interest through body language help them be more open with their remarks? Why?

SAFETY

N/A.

Ensure cadets understand that this activity was chosen to give them an opportunity to demonstrate positive group dynamics by being sensitive to other points of view, listening without interrupting, learning your teammates' strengths and weaknesses and increasing their self-confidence through positive self-talk.

END OF LESSON CONFIRMATION

The cadets' participation in the activity in TP3 will serve as confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

It is important to demonstrate positive group dynamics by being a supportive and encouraging team member within a peer setting. As a full participant in team activities, cadets may enjoy their tasks more and they may make more effective contributions to the team's success. This may assist in building the cadet's self-confidence and self-esteem and may improve their basic leadership skills.

INSTRUCTOR NOTES/REMARKS

The instructor shall provide a safe learning and team-building environment in which the cadets will display and demonstrate positive group dynamics.

REFERENCES

C0-028 (ISBN 0-07-046513-4) Newstrom, J. & Scannell, E. (1998). *The Big Book of Team Building Games.* USA: McGraw-Hill Companies.

C0-114 (ISBN 0-02-863656-2) Pell, A. R. (1999). *The Complete Idiot's Guide to Team Building.* USA: Alpha Books.

C0-115 (ISBN 0-7879-4059-3) Van Linden, J. A. & Fertman, C. I. (1998). *Youth Leadership.* San Francisco, California: Jossey-Bass Inc.

COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 5

EO M203.05 – DISCUSS INFLUENCE BEHAVIOURS

Total Time:	30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Make six copies of the handouts at Annexes B, C and D for the activities in TP1 to TP3.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An in-class activity was chosen for TP1 to TP3 as an interactive way to provoke thought and stimulate an interest among cadets.

A group discussion was chosen for TP4 as it allows the cadets to interact with their peers and share their knowledge, experiences, opinions and feelings about influence behaviours.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to discuss influence behaviours.

IMPORTANCE

It is important for cadets to acknowledge the influence they have in a peer setting. Learning influence behaviours may enable cadets to choose the correct influence behaviour for the situation to successfully accomplish tasks in a peer setting.

Teaching Point 1 **Perform in a Skit to Portray Directive Behaviour**

Time: 5 min Method: In-class Activity

The earliest studies of leadership commonly referred to influence behaviours as leadership styles or approaches. The three influence behaviours listed below are chosen from a spectrum of eight influence behaviours.

ACTIVITY

OBJECTIVE

The objective of this activity is to have cadets perform in a skit to portray directive behaviour and to recognize its use.

RESOURCES

Skit located at Annex B.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Have cadets volunteer to perform in the skit.
2. Distribute the scripts to the cadets who volunteered.
3. Have cadets perform the skit.
4. Ask cadets to brainstorm a list of traits they noticed about Cadet Purple in this skit.
5. Copy the list on a whiteboard/flipchart/OHP.
6. Have cadets return the scripts.

Upon completion of the brainstorming conclude by summarizing directive behaviour before moving on to the next TP.

DIRECTIVE BEHAVIOUR

Generally, directive behaviour involves telling teammates what they are to do, and possibly, when, how and to what standard they are to accomplish the task. Directive behaviour may be expressed as a simple request, a formal order or something in between. Directive behaviour is appropriate when passing on and executing a superior's objective, when assigning and co-ordinating tasks and when teammates lack information or experience and need guidance.

Directive behaviour is used most often in emergency situations where time, safety, and control of personnel are factors. Another example is drill. Drill is normally conducted using directive behaviour.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. What does directive behaviour involve?

Q2. When is directive behaviour appropriate?

Q3. Where is directive behaviour used most often?

ANTICIPATED ANSWERS

A1. Directive behaviour involves telling teammates what they are to do, and possibly, when, how and to what standard.

A2. Directive behaviour is appropriate when passing on and executing a superior's objective, when assigning and co-ordinating tasks and when teammates lack information or experience and need guidance.

A3. Directive behaviour is used most often in emergency situations where time, safety, and control of personnel are factors.

Teaching Point 2 **Perform in a Skit to Portray Persuasive Behaviour**

Time: 5 min Method: In-class Activity

ACTIVITY

OBJECTIVE

The objective of this activity is to have cadets perform in a skit to portray persuasive behaviour and to recognize its use.

RESOURCES

Skit located at Annex C.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Have cadets volunteer to perform in the skit.
2. Distribute the scripts to the cadets who volunteered.
3. Have cadets perform the skit.
4. Ask cadets to brainstorm a list of traits they noticed about Cadet Purple in this skit.
5. Copy the list on a whiteboard/flipchart/OHP.

6. Have cadets return the scripts.

Upon completion of the brainstorming conclude by summarizing persuasive behaviour before moving on to the next TP.

PERSUASIVE BEHAVIOUR

Generally, persuasive behaviour is intended to influence decision-making and motivation. This is accomplished by explaining to, or convincing others why a certain course of action is necessary. Persuasive behaviour may involve rational argument based on facts, reason and logic and/or inspirational appeals which motivate others. This behaviour may allow teammates to understand the potential benefits to them created by the course of action and should aid teammates in their commitment to the task. Persuasive behaviour is appropriate to secure agreement or commitment and when particularly high or sustained levels of effort are required to accomplish a task.

There are many situations when persuasive behaviour is used. These may include problem-solving, counselling, teaching, etc. Persuasive behaviour is usually effective in a peer setting if all teammates display positive group dynamics.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. When is persuasive behaviour used?

Q2. What are the potential benefits of the persuasive behaviour?

Q3. Name three situations where persuasive behaviour may be used?

ANTICIPATED ANSWERS

A1. Persuasive behaviour is used to influence decision-making and motivate others.

A2. Persuasive behaviour may allow teammates to understand the potential benefits to them created by the course of action and should aid teammates in their commitment to the task.

A3. Persuasive behaviour may be used when problem-solving, counselling, teaching, etc.

Teaching Point 3 **Perform in a Skit to Portray Participative Behaviour**

Time: 5 min Method: In-class Activity

ACTIVITY

OBJECTIVE

The objective of this activity is to have cadets perform in a skit to portray participative behaviour and to recognize its use.

RESOURCES

Skit found at Annex D.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Have cadets volunteer to perform in the skit.
2. Distribute the scripts to the cadets who volunteered.
3. Have cadets perform the skit.
4. Ask cadets to brainstorm a list of traits they noticed about Cadet Purple in this skit.
5. Copy the list on a whiteboard/flipchart/OHP.
6. Have cadets return the scripts.

Upon completion of the brainstorming conclude by summarizing participative behaviour before moving on to the next TP.

PARTICIPATIVE BEHAVIOUR

Generally, participative behaviour involves sharing decision-making with others. The primary objective is to improve the quality and/or acceptance of decisions. Participative behaviours employ two basic methods – individual or group consultations and joint decision-making. Obtaining advice, opinions and recommendations from others before sharing decision-making is essential. Sometimes teammates possess critical information or expertise and that knowledge may make the difference between success or failure of the task. The use of the participative behaviour depends on the availability of time to involve others. Teammates expect to be consulted on and have a voice in decisions that affect them.

There are many situations when participative behaviour is used including problem-solving, participating in team-building activities, resolving conflict in a peer setting, etc. Participative behaviour is usually effective in a peer setting because all teammates have a part to play in making the decision.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

Q1. What does participative behaviour involve?

Q2. What are the two basic methods of employing persuasive behaviours?

Q3. Name three situations where participative behaviour may be used.

ANTICIPATED ANSWERS

A1. Participative behaviour involves sharing decision-making with others.

A2. Participative behaviours employ two basic methods – individual or group consultations and joint decision-making.

A3. Participative behaviour may be used during problem solving, participating in team-building activities, resolving conflict in a peer setting, etc.

Teaching Point 4 **Discuss Situations in Which Cadets May Employ the Various Influence Behaviours in Peer Group Settings**

Time: 10 min Method: Group Discussion

BACKGROUND KNOWLEDGE

The point of the group discussion is to draw the following information from the group using the tips for answering/facilitating discussion and the suggested questions provided.

Different influence behaviours will be used during different situations. A good leader may use a combination of behaviours based on the situation, the experience of the followers, the time to get a task done, etc. Each of the influence behaviours has its place and can be used effectively under the correct conditions.

GROUP DISCUSSION

TIPS FOR ANSWERING/FACILITATING DISCUSSION

- Establish ground rules for discussion, e.g. everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Manage time by ensuring the cadets stay on topic.
- Listen and respond in a way that indicates you have heard and understood the cadet. This can be done by paraphrasing their ideas.
- Give the cadets time to respond to your questions.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer.
- Cadets must also have the option to pass if they wish.
- Additional questions should be prepared ahead of time.

SUGGESTED QUESTIONS

Q1. When is directive behaviour most effective at cadets or at school?

Q2. When is persuasive behaviour most effective at cadets or at school?

Q3. When is participative behaviour most effective at cadets or at school?

Q4. What are the differences between persuasive and participative behaviours?

Other questions and answers will develop throughout the group discussion. The group discussion should not be limited to only those suggested.

Reinforce those answers given and comments made during the group discussion, ensuring the teaching point has been covered.

CONFIRMATION OF TEACHING POINT 4

The cadets' participation in the group discussion will serve as confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in the activities in TP1 to TP3 and the group discussion in TP4 will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Through the Cadet Program there may be many opportunities for cadets to influence their peers. Choosing the correct influence behaviour for a situation may assist them in accomplishing tasks in a peer setting.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

A0-047 A-PA-005-000/AP-004 DND. (2005). *Leadership in the Canadian Forces: Conceptual Foundations.* Ottawa, ON: Department of National Defence.

A0-048 A-PA-005-000/AP-003 DND. (2005). *Leadership in the Canadian Forces: Doctrine.* Ottawa, ON: Department of National Defence.

C0-113 (ISBN 1-882664-12-4) Karnes, F. A. & Bean, S. M. (1995). *Leadership for Students: A Practical Guide for Ages 8-18.* Waco, Texas: Prufrock Press.

C0-115 (ISBN 0-7879-4059-3) Van Linden, J. A. & Fertman, C. I. (1998). *Youth Leadership.* San Francisco, California: Jossey-Bass Inc.

COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 6

EO M203.06 – EMPLOY PROBLEM SOLVING

Total Time: 60 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Copy handouts located at Annex E for each cadet.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TP1 to orient the cadets to problem solving.

An in-class activity was chosen for TP2 as an interactive way to provoke thought, stimulate an interest among cadets and present problem solving.

A group discussion was chosen for TP3 as it allows the cadets to interact with their peers and share their knowledge, experiences, and opinions about problem solving.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall employ problem solving.

IMPORTANCE

One of the qualities of leadership is problem solving. As cadets become leaders within a peer setting they will use this quality more often. By having some tools to solve problems cadets may have an easier time to resolve them.

Teaching Point 1 **Explain Problem Solving**

Time: 20 min Method: Interactive Lecture

A Problem. This is a doubtful or difficult matter requiring a solution.

Red Star cadets deal with varying problems daily. We all possess a natural ability to solve dilemmas that may take little effort or planning such as trying to decide with our friends what to do on a Saturday night or getting up to go to school. However, when faced with more complex matters like working with a group on a cadet or school project or finding more than one solution to a problem, a more efficient methodology than trial and error analysis may be required.

Trial and Error Analysis. This method used to solve problems if there is a great deal of time available and the possible outcomes are not serious.

A PROBLEM-SOLVING PROCESS

Logical Analysis. One of the processes to solve problems is logical analysis, if there is sufficient time available for consideration of all the options. Logical analysis helps reduce a complex thought process into a simple format. However, some problems are very simple so all the steps in the process may not be used. If the team follows these steps, they should be able to create a plan to implement a solution.

When a task is assigned to cadets in a peer setting, the cadets should follow all the steps in the logical analysis process. If a problem develops that cadets within a peer setting must solve, without being directed to do so, the cadets should begin the logical analysis at step 2.

Steps in Logical Analysis:

1. **Confirm the Task.** By understanding both the problem and the aim or intent of the person assigning the task, the team has the freedom to act within their initiative to lead the team to success, especially when factors or plans change.
2. **Identify the Problem(s).** Once a problem is understood, the team must consider the problem or challenges that may occur in the implementation. This usually requires breaking the problem down into its component parts (“do this, then this, then this…”).
3. **Determine the “Critical Factor”.** There is usually one overriding problem in which all other issues will depend. This is called the CRITICAL FACTOR. Once identified, a plan to solve the problem can be formed around solving the critical factor.
4. **Develop Alternate Solutions.** Create as many possible solutions as time allows, drawing from the experience, knowledge and initiative of the team.
5. **Compare Alternatives.** Each solution must then be compared by the team in order to decide on the best solution. To decide which solution is the best, some questions may be asked:
    1. Which solution is the simplest?
    2. Which solution is the safest? What is the worst possible outcome? What are the dangerous elements?
    3. Which solution is the most flexible?
    4. Which solution uses available resources in an economical manner?
    5. Which solution will solve the critical factor and all other problems?
6. **Determine the Best Solution.** The team should choose the best solution to implement the plan of action.

7. **Implement the Solution.** The team should create a plan to implement the solution and get the problem solved. If a plan does not work like the team wanted, they may try another of the alternative solutions.

8. **Evaluate the Plan and the Implementation.** The team should evaluate performance once the problem is solved. The team should examine the implementation of the solution and the needs that may not have been anticipated. Questions may include:

    1. Was the solution a good one?
    2. Was the plan to implement the solution a success?
    3. What can we do to improve the plan or the implementation for the next time?
    4. What lessons were learned?

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. What is the definition of a problem?

Q2. List the steps in Logical Analysis.

Q3. List some questions that should be asked to evaluate the plan and implementation.

ANTICIPATED ANSWERS

A1. A problem is a doubtful or difficult matter requiring a solution.

A2. The steps in Logical Analysis are:

1. confirm the task;
2. identify the problem(s);
3. determine the “Critical Factor”;
4. develop alternate solutions;
5. compare alternatives;
6. determine the best solution;
7. implement the solution; and
8. evaluate the plan and the implementation.

A3. Questions may include:

1. Was the solution a good one?
2. Was the plan to implement the solution a success?
3. What can we do to improve the plan or the implementation for the next time?
4. What lessons were learned?

Teaching Point 2 — **Conduct a Writing Activity Where Cadets Solve Problems Using the Technique From TP1**

Time: 10 min — Method: In-class Activity

ACTIVITY

OBJECTIVE

The objective of this activity is for cadets to follow the problem solving steps in a written format.

RESOURCES

- 8.5 x 11 inch paper,
- Pen/pencil, and
- Scenario at Annex E.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

Distribute the problem scenario located at Annex E to each cadet.

Instruct cadets to write down in point form how they would solve the problem. Cadets must list at least three possible solutions to solve the problem.

Ensure cadets follow all the steps in the process.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 2

The cadets' participation in the activity will serve as the confirmation of this TP.

Teaching Point 3 **Conduct a Discussion Where Cadets Explain Their Choices From the Problem-solving Exercise**

Time: 20 min Method: Group Discussion

BACKGROUND KNOWLEDGE

The point of the group discussion is to draw the following information from the group using the tips for answering/facilitating discussion and the suggested questions provided.

Ask for volunteers to share how they would solve the problem.

GROUP DISCUSSION

TIPS FOR ANSWERING/FACILITATING DISCUSSION

- Establish ground rules for discussion, e.g. everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Manage time by ensuring the cadets stay on topic.
- Listen and respond in a way that indicates you have heard and understood the cadet. This can be done by paraphrasing their ideas.
- Give the cadets time to respond to your questions.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer.
- Cadets must also have the option to pass if they wish.
- Additional questions should be prepared ahead of time.

SUGGESTED QUESTIONS

Q1. What is the problem?

Q2. What is the critical factor?

Q3. What alternate solutions were developed?

Q4. List some comparisons for alternate solutions.

Q5. What solution was chosen?

Q6. Why was this choice made?

Q7. What was the plan to implement the solution?

Q8. What questions would be asked to evaluate the plan and the implementation?

Other questions and answers will develop throughout the group discussion. The group discussion should not be limited to only those suggested.

END OF LESSON CONFIRMATION

The cadets' participation in TP2 and TP3 will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

It is important to practice the skill of problem solving in a peer environment. Learning to solve problems is a quality of leadership. Knowing and using a technique to solve problems may help develop problem-solving skills.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

A2-036 A-CR-CCP-121/PT-001 D Cdts 3. (2003). *Royal Canadian Army Cadet Reference Book.* Ottawa, ON: Department of National Defence.

C0-115 (ISBN 0-7879-4059-3) Van Linden, J. A. & Fertman, C. I. (1998). *Youth Leadership.* San Francisco, California: Jossey-Bass Inc.

C0-135 (ISBN 0-7645-5176-0) Loeb, M. & Kindel, S. (1999). *Leadership for Dummies.* Indianapolis, Indiana: Wiley Publishing, Inc.

COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 7

EO M203.07 – DISCUSS PERSONAL INTEGRITY AS A QUALITY OF LEADERSHIP

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TP1 to orient the cadets to personal integrity as a quality of leadership.

An in-class activity was chosen for TP2 and TP3 as an interactive way to provoke thought, stimulate an interest among cadets and present personal integrity as a quality of leadership.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to discuss personal integrity as a quality of leadership.

IMPORTANCE

It is important for cadets to learn that personal integrity is a fundamental quality of leadership. Without personal integrity, a leader may never build the trust of his followers or his teammates. As listed in CATO 11-03, *Cadet Program Mandate*, leadership is one of the three aims of the Cadet Program.

Teaching Point 1 **Explain Personal Integrity**

Time: 5 min Method: Interactive Lecture

The most basic quality of leadership is personal integrity.

Ask cadets if they know what the word integrity means.

Integrity means moral uprightness; honesty. Personal integrity means doing the right thing, even if nobody is watching.

People struggle daily with situations that demand decisions between what they want to do and what they ought to do.

According to John C. Maxwell, the author of a number of best-selling books on leadership, if a leader uses personal integrity, a leader should be consistent. If what the leader says and what the leader does is the same, the results by the team will be consistent. For example:

The leader says to their team: “Be on time.”	The leader arrives on time.	The team will be on time.
The leader says to their team: “Be positive.”	The leader exhibits a positive attitude.	The team will be positive.
The leader says to their team: “Put others first.”	The leader puts others first.	The team puts others first.

If what the leader says and what the leader does is not the same, the results by the team will be inconsistent.

The leader says to their team: “Be on time.”	The leader arrives late regularly.	Some of the team will be on time, some will not.
The leader says to their team: “Be positive.”	The leader exhibits a negative attitude regularly.	Some of the team will be positive, some will not.
The leader says to their team: “Put others first.”	The leader puts themselves first.	Some of the team will put others first, some will not.

Aristotle, the Greek philosopher, once said, “We are what we repeatedly do. Excellence, then, is not an act but a habit.”

Personal integrity builds trust. To earn the trust of others, a leader should lead by example. If the leader’s words and actions match, teammates and followers should have trust and confidence in the group. Personal integrity usually results in a solid reputation, not just an image.

Personal integrity builds trust. Trust builds confidence. Confidence builds relationships. Relationships build leadership.

For the next series of questions, ensure cadets do NOT name the people they are thinking about. This is NOT a sharing activity.

Ask cadets to think of someone they know who has a good reputation. Is this person trustworthy? Ask cadets to think of someone they know who has poor reputation. Is this person trustworthy?

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. What does integrity mean?

Q2. What is the most basic quality of leadership?

Q3. What does personal integrity build?

ANTICIPATED ANSWERS

A1. Integrity means moral uprightness; honesty.

A2. Personal integrity is the most basic quality of leadership.

A3. Personal integrity builds trust.

Teaching Point 2 — **Conduct an Activity Where Cadets Brainstorm Where They Have Seen Integrity Displayed Within Their Peer Group**

Time: 5 min — Method: In-class Activity

ACTIVITY

OBJECTIVE

The objective of this activity is for cadets to brainstorm where they have seen integrity displayed within their peer group. This reflective activity allows cadets to integrate their thoughts about leadership theory into their own experiences.

RESOURCES

N/A.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

Have cadets brainstorm examples where they have seen integrity displayed within their peer group either during cadets, school, or other extra-curricular activities. Write in point form, the examples on a whiteboard/flipchart/ OHP.

Discuss instances where the cadets' peers have displayed:

- honesty
- honour,
- good character,
- decency,
- fairness,
- sincerity, and
- trustworthiness, etc.

Ask cadets how they think the person in their example, who displayed personal integrity, would feel if they were in the class at that moment, after all the positive things have been said about them?

If cadets mention someone in the class, be sure to praise the person mentioned. Positive reinforcement of correct behaviour is an excellent instructional technique.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 2

The cadets' participation in the activity will serve as the confirmation of this TP.

Teaching Point 3 **Conduct an Activity Where Cadets Create a Poster That Shows an Example of Integrity**

Time: 15 min Method: In-class Activity

ACTIVITY

OBJECTIVE

The objective of this activity is for the cadets to create a poster that shows an example of integrity. This activity allows cadets to reflect on personal integrity as a quality of leadership.

RESOURCES

- Pencil crayons/felt markers, and
- 8.5 x 14 inch paper.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

- Distribute pencil crayons/felt markers and the 8.5 x 14 inch paper to the cadets.
- Have the cadets draw and colour a poster to represent personal integrity as a quality of leadership. Cadets may create a picture, use a mind-map, use a saying, etc. Cadets may use the examples from TP2 or another instance of personal integrity.

Be sure to display posters in a place where they may be seen by as many corps members as possible.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 3

The cadets' participation in the activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' creation of posters displaying personal integrity will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Brian Tracy, a leadership trainer, says, "The glue that holds all relationships together, including the relationship between the leader and the led is trust, and trust is based on integrity."

Personal integrity is the foundation of leadership. When cadets display this quality, it is the first step in their role as leaders within a peer setting.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

A0-010 CATO 11-03 D Cdts 2. (2006). *Cadet Program Mandate.* Ottawa, ON: Department of National Defence.

C0-112 (ISBN 0-8407-6744-7) Maxwell, J. C. (1993). *Developing the Leader Within You.* Nashville, Tennessee: Thomas Nelson Inc. Publishers.

COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 8

EO M203.08 – PARTICIPATE IN TEAM-BUILDING ACTIVITIES

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

The time spent on each activity is at the discretion of the instructor. One activity may be conducted for the entire period or both activities may be conducted consecutively.

If the group is large, both activities may be conducted concurrently. When conducting activities concurrently, ensure additional supervision is provided.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An in-class activity was chosen for this lesson as it is a fun and challenging way to expand the cadets' experience participating in team-building activities and reinforce the cadets' appreciation of the fundamentals of leadership.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to participate in team-building activities.

IMPORTANCE

It is important for cadets to participate in team-building activities, including trust games, as it may improve their leadership abilities in a peer setting by allowing cadets to practice communication skills and positive group dynamics.

Teaching Point 1 **Conduct Team-building Activities Through Trust Games**

Time: 25 min Method: In-class Activity

ACTIVITY 1

Time: 10 min

OBJECTIVE

The objective of this activity is to have the cadets develop trust within their peer group.

RESOURCES

N/A.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Divide the group into pairs.
2. Cadets must assume a squatting position.
3. Cadets must face each other with their hands extended in front of their bodies, fingers pointing toward the ceiling and touching palms with their partner.
4. Cadets must attempt to knock their partner off balance by either pushing their palms, or withdrawing their palms using only slow motion movements. (Using slow motion movements should allow the two cadets to become cooperative partners.)
5. A player may lose the game if their feet move. (Most games conveniently end with both partners falling or moving their feet at the same time.)
6. Cadets may change partners as time allows.

SAFETY

The activity will be stopped if horseplay occurs.

ACTIVITY 2

Time: 15 min

OBJECTIVE

The objective of this activity is to have the cadets develop trust in their peer group.

RESOURCES

N/A.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Divide the group into two lines facing each other, forming a corridor.
2. Have cadets put their arms straight in front of themselves. Arms should intersect, overlapping about a hand width apart from the person opposite them.

Wilderdom (2007). Index to Group Activities, Games, Exercises and Initiatives: Trust-Building Activities. (2007). Retrieved 26 April 2007, from http://wilderdom.com/games/descriptions/SliceNDice.html

Figure 3-8-1 Slice and Dice

3. The first cadet peels off and walks down the corridor. To let the cadet pass, have the other cadets raise and then lower their arms, creating a ripple effect in the corridor, through which the cadet is walking.
4. Once the cadet is finished walking down the corridor, the cadet joins the end of the corridor from which they have just emerged.
5. The next cadet, at the front of the line, peels off and walks down the corridor, and then joins the end of the line.
6. Each cadet takes a turn going down the corridor.

As cadets become more confident, invite them to walk fast, run and then sprint down the corridor. At some point, have the cadets chop their arms up and down, only pausing to allow the corridor runner through.

SAFETY

The activity will be stopped if horseplay occurs.

CONFIRMATION OF TEACHING POINT 1

The cadets' participation in the team-building activities will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in the team-building activities will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Trust in others and trust in the leader are key leadership attributes and they may assist cadets in leading in a peer setting. When members of a team trust each other, accomplishing any task is usually easier. If cadets cultivate trust and protect the trust that others offer and share, cadets may increase the confidence others have in them and this should increase their own self-confidence.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

C0-152 Wilderdom. (2007). *Index to Group Activities, Games, Exercises and Initiatives: Trust-Building Activities.* Retrieved 26 April 2007, from http://wilderdom.com/games/descriptions/SliceNDice.html.

C1-006 (ISBN 0-8403-5682-X) Ronhke, C. (1984). *Silver Bullets: A Guide to Initiative Problems, adventures Games and Trust Activities.* Dubuque, Iowa: Kendall/Hunt Publishing Company.

COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 9

EO C203.01 – RECORD ENTRIES IN A REFLECTIVE JOURNAL

Total Time:	3 x 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Choose one template of questions for reflection from the four located at Annex F and make a copy for each cadet.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An in-class activity was chosen for this lesson to reinforce leadership principles and characteristics and to provoke thought. It also allows the cadets to interact with their peers and share their knowledge, experiences, opinions and feelings about a recent team-building or training activity.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall record entries in a reflective journal.

IMPORTANCE

Reflective thinking and evaluating past performance of tasks through journaling allows cadets to synthesize new knowledge and experiences to prior understanding. Cadets may develop self-awareness and/or recognize positive attributes of leadership that they may wish to integrate into their own personal leadership style.

Teaching Point 1 **Conduct an Activity During Which Cadets Record Their Thoughts on Leadership**

Time: 25 min Method: In-class Activity

Recording in a reflective journal may encourage cadets to evaluate and analyze experiences they have undergone. It is an opportunity to think about, describe and communicate their impressions on peer interactions.

ACTIVITY

OBJECTIVE

The objective of this activity is for cadets to record their thoughts on leadership they displayed or the leadership they observed on a specific training activity.

RESOURCES

- Handouts of questions for reflection,
- 8.5 x 11 inch paper, and
- Pen/pencil.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Distribute a handout of the chosen template for reflection to each cadet.
2. Based on the last training activity in which the cadet participated (e.g., a field exercise, a community service exercise, a tour, etc.) the cadet must reflect on the leadership qualities and attributes they displayed or observed.
3. Instruct cadets to complete the template to the best of their ability.
4. Templates may be completed using sentences or point form. Mind mapping or drawing may be done on a separate piece of paper.

Cadets may share their journal or work with the class.

There are no right or wrong journal entries when cadets record their thoughts. Put as few restrictions as possible on the journal entries cadets may give during this activity.

If time permits, another template of questions for reflection may be completed.

SAFETY

N/A.

END OF LESSON CONFIRMATION

The cadets' participation in the activity will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Recording in a reflective journal, cadets have the opportunity to consider and/or evaluate experiences they have undergone. This may assist them in recognizing leadership qualities, principles and approaches the cadet wishes to incorporate into their own personal leadership style.

INSTRUCTOR NOTES/REMARKS

This EO should follow a significant practical activity such as a tour, a field exercise or EO M203.08 (Participate in Team-Building Activities).

REFERENCES

C0-113 (ISBN 1-882664-12-4) Karnes, F. A. & Bean S. M. (1995). *Leadership for Students: A Practical Guide for Ages 8-18.* Waco, Texas: Prufrock Press.

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INSTRUCTIONAL GUIDE

SECTION 10

EO C203.02 – EMPLOY PROBLEM SOLVING

Total Time:	60 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Photocopy scenarios located at Annex G.

Cut up scenarios located at Annex G.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An in-class activity was chosen for TP1 as an interactive way to provoke thought and stimulate an interest among cadets.

A group discussion was chosen for TP2 as it allows the cadets to interact with their peers and share their knowledge, experiences, opinions and feelings about problem solving.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall employ problem solving.

IMPORTANCE

One of the qualities of leadership is problem solving. As cadets become leaders within a peer setting they will use this quality more often. It is important to practice this quality. Knowing and using a technique to solve problems may give the cadet increased confidence in their leadership ability.

Teaching Point 1 **Conduct an Activity Where Cadets Solve Problems Using Logical Analysis**

Time: 25 min Method: In-class Activity

STEPS TO LOGICAL ANALYSIS

1. **Confirm the Task.** The team must understand both the problem and the aim or intent of the person assigning the task.
2. **Identify the Problem.** The team must consider the problem and the challenges that may occur in the implementation.
3. **Determine the Critical Factor.** The critical factor is usually the one overriding problem, on which all other issues depend. The critical factor should be determined by the team.
4. **Develop Alternate Solutions.** The team should create as many possible solutions to solve the critical factor and other issues as time allows.
5. **Compare Alternate Solutions.** Each solution must be compared by the team in order to decide on the best solution.
6. **Determine the Best Solution.** The team should choose the best solution to implement a plan of action.
7. **Implement the Solution.** The team should create a plan to implement the solution and get the problem solved.
8. **Evaluate the Plan and Implementation.** The team should evaluate their performance once the problem is solved.

ACTIVITY

Time: 15 min

OBJECTIVE

The objective of this activity is for cadets to solve problems within a peer setting.

RESOURCES

- Flipchart paper,
- Markers,
- Paper bag, and
- Scenarios of problems.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Divide the class into small groups of no more than four cadets.
2. Distribute flipchart paper and markers to each group.

3. Have one representative from each group come to the front of the class and pick one or two scenarios at random from a paper bag or a beret.
4. Instruct the cadets that the problem-solving steps must be used to solve the scenario.
5. Cadets must list at least three solutions to each problem.
6. Cadets must record the steps they would use to solve each scenario on the flipchart paper.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 1

The cadets' participation in the activity will serve as the confirmation of this TP.

Teaching Point 2 **Conduct a Group Discussion Where Cadets Explain Their Choices From the Problem-solving Exercise**

Time: 25 min Method: Group Discussion

BACKGROUND KNOWLEDGE

The point of the group discussion is to draw the following information from the group using the tips for answering/facilitating discussion and the suggested questions provided.

Have one representative from each group present their problem scenario and the steps the group used to solve the problem.

GROUP DISCUSSION

TIPS FOR ANSWERING/FACILITATING DISCUSSION

- Establish ground rules for discussion, e.g., everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Manage time by ensuring the cadets stay on topic.
- Listen and respond in a way that indicates you have heard and understood the cadet. This can be done by paraphrasing their ideas.
- Give the cadets time to respond to your questions.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer. Cadets must also have the option to pass if they wish.
- Additional questions should be prepared ahead of time.

SUGGESTED QUESTIONS

Q1. What is the problem?

Q2. What is the critical factor?

Q3. What alternate solutions were developed?

Q4. What are some comparisons for alternate solutions?

Q5. What solution was chosen?

Q6. Why was this choice made?

Q7. What was the plan to implement the solution?

Q8. What questions would be asked to evaluate the plan and the implementation?

Q9. Are there different problems, other solutions, etc.?

Other questions and answers will develop throughout the group discussion. The group discussion should not be limited to only those suggested.

Reinforce those answers given and comments made during the group discussion, ensuring the teaching point has been covered.

CONFIRMATION OF TEACHING POINT 2

The cadets' participation in the group discussion will serve as confirmation of this TP.

END OF LESSON CONFIRMATION

QUESTIONS

Q1. List the steps in Logical Analysis.

Q2. What is the critical factor?

Q3. Who should determine the best solution?

ANTICIPATED ANSWERS

A1. The steps in Logical Analysis are:

1. confirm the task;
2. identify the problem;
3. determine the critical factor;
4. develop alternate solutions;
5. compare alternate solutions;
6. determine the best solution;
7. implement the solution; and
8. evaluate the plan and implementation.

A2. The critical factor is usually the one overriding problem on which all other issues depend.

A3. The team should determine the best solution.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Applying the steps in logical analysis to a given problem enables the cadet to determine and implement a solution. With practice, this problem-solving skill will develop. Knowing and using logical analysis to solve problems may give the cadet increased confidence in their ability to lead in a peer setting.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

A2-036 A-CR-CCP-121/PT-001 D Cdts 3. (2003). *Royal Canadian Army Cadet Reference Book.* Ottawa, ON: Department of National Defence.

C0-115 (ISBN 0-7879-4059-3) Van Linden, J. A. & Fertman, C. I. (1998). *Youth Leadership.* San Francisco, California: Jossey-Bass Inc.

C0-135 (ISBN 0-7645-5176-0) Loeb, M. & Kindel, S. (1999). *Leadership for Dummies.* Indianapolis, Indiana: Wiley Publishing, Inc.

COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 11

EO C203.03 – DISCUSS CHARACTERISTICS OF A LEADER

Total Time: 60 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Copy the handouts located at Annex H and distribute to each cadet prior to the lesson.

PRE-LESSON ASSIGNMENT

Using the research information sheet provided, the cadets will research a leader of their choice (a military person, political leader, pastor, teacher, etc.) prior to the lesson.

Cadets will bring to the class presentation materials (if needed) and information about the leader they researched.

APPROACH

An in-class activity was chosen for TP1 to reinforce leadership principles to provoke thought.

A group discussion was chosen for TP2 as it allows the cadets to interact with their peers and share their knowledge, experiences, opinions and feelings about characteristics of a leader.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall discuss the characteristics of a leader.

IMPORTANCE

In discussing the characteristics of various leaders, cadets may be able to discern different leadership qualities, principles and approaches. After reflection, cadets may wish to incorporate these qualities, principles and approaches into their own leadership style.

Teaching Point 1 **Discuss the Study of Specific Leaders**

Time: 30 min Method: In-class Activity

ACTIVITY

OBJECTIVE

The objective of this activity is to have cadets discuss, in a group of no more than four, their studies of specific leaders.

RESOURCES

N/A.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Divide the class into groups of no more than four.
2. In a group of four, the first cadet will present their study of a specific leader.
3. The other three cadets will be given three minutes to ask questions.

Questions from cadets to the presenter should be created using the research template at Annex H.

4. Another cadet will present their study of a specific leader.
5. The other three cadets will be given three minutes to ask questions.
6. The rest of the cadets will present their specific leader in turn.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 1

The cadets' participation in the activity will serve as the confirmation of this TP.

Teaching Point 2 **Conduct a Group Discussion Where Cadets Volunteer to Share Their Study of a Specific Leader With the Entire Group**

Time: 20 min Method: Group Discussion

BACKGROUND KNOWLEDGE

The point of the group discussion is to draw the following information from the group using the tips for answering/facilitating discussion and the suggested questions provided.

Use the completed handouts from the cadets as the material for the group discussion.

GROUP DISCUSSION

TIPS FOR ANSWERING/FACILITATING DISCUSSION

- Establish ground rules for discussion, e.g. everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Manage time by ensuring the cadets stay on topic.
- Listen and respond in a way that indicates you have heard and understood the cadet. This can be done by paraphrasing their ideas.
- Give the cadets time to respond to your questions.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer. Cadets must also have the option to pass if they wish.
- Additional questions should be prepared ahead of time.

Ask cadets if they wish to volunteer to share their study of a specific leader with the class.

SUGGESTED QUESTIONS

Q1. Where did the leader use their influence?

Q2. Was the leader's influence positive or negative?

Q3. How was it positive or negative?

Q4. How did their leadership style create opportunities in the leader's life?

Q5. What kind of leadership approach did the leader use?

Q6. Was the leader able to solve problems?

Q7. How did the leader solve problems?

Q8. When did the leader display personal integrity?

Q9. How did the leader display personal integrity?

Other questions and answers will develop throughout the group discussion. The group discussion should not be limited to only those suggested.

Reinforce those answers given and comments made during the group discussion, ensuring the teaching point has been covered.

CONFIRMATION OF TEACHING POINT 2

The cadets' participation in the group discussion will serve as confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in the in-class activity and group discussion will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Learning about different leaders and being able to describe their attributes may help cadets understand that leaders come from all walks of life with different leadership qualities, principles and approaches. Deciding

whether to incorporate those attributes into the cadet's leadership style may assist the cadet in becoming a more effective leader.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

C0-113 (ISBN 1-882664-12-4) Karnes, F. A. & Bean S. M. (1995). *Leadership for Students: A Practical Guide for Ages 8-18.* Waco, Texas: Prufrock Press.

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INSTRUCTIONAL GUIDE

SECTION 12

EO C203.04 – PARTICIPATE IN A PRESENTATION GIVEN BY A LEADER

Total Time:	60 min

There is no instructional guide provided for this EO.

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INSTRUCTIONAL GUIDE

SECTION 13

EO C203.05 – PARTICIPATE IN TRUST-BUILDING ACTIVITIES

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

The time spent on each activity is at the discretion of the instructor. If time permits, activities may be conducted consecutively. If the group is large, activities may be conducted concurrently. When conducting activities concurrently, ensure enough resources and supervision are available.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An experiential approach was chosen for this lesson as it allows the cadets to acquire new skills through a direct experience. This approach allows cadets to experience trust-building activities and define that experience on a personal level. They will be given the opportunity to reflect on and examine what they saw, felt and thought while they were having the experience, and consider how this will relate to future experiences.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to participate in trust-building activities.

IMPORTANCE

It is important for cadets to participate in trust-building activities as it may improve their leadership abilities in a peer setting by allowing cadets to practice communication skills and positive group dynamics.

BACKGROUND KNOWLEDGE

Trust is a powerful and essential leadership attribute because it is a key to personal involvement. A cadet will seldom take a physical or emotional chance if they perceive callousness or an unreasonable risk. A group surrounded with positive experiences and successes will undergo growth in trust and personal confidence. Trust, within the framework of leadership, is gained with patience, thoughtfulness and care over a period of time. Trust can also be lost in a second by carelessness or inconsiderate behaviour. Cultivating and protecting the trust that another individual offers should be a fundamental leadership quality to be acquired.

ACTIVITY 1

Time: 20 min Method: Experiential

OBJECTIVE

The objective of this activity is to have cadets develop trust in their peer group.

RESOURCES

- A large empty space with four walls, and
- A blindfold.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

Brief the cadets on any safety rules or any other guidelines pertaining to the activity.

1. Have one cadet stand with their back to one wall of a large four-walled room. This cadet becomes the jogger.
2. The jogger must hold their hands up in front of their body, palms out, to protect themselves.
3. Blindfold the jogger.
4. Place three-quarters of the group in a line with their backs to the wall that the jogger will be approaching. They will act as spotters. The spotter's job is to prevent the jogger from running into the wall.
5. Place the remaining quarter of the group three-quarters of the way down the room to prevent wildly disoriented joggers from running into the side walls.
6. Ask the jogger to jog toward the far wall at a steady, unchanging pace.
7. Have cadets take turns being the jogger.

SAFETY

The spotters must be as quiet as possible to increase the resolve of the jogger.

The spotters must concentrate on the jogger at all times. If the jogger hits a wall the trust of the group may be broken.

ACTIVITY 2

Time: 20 min

OBJECTIVE

The objective of this activity is to have cadets develop trust in their peer group.

RESOURCES

A blindfold.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

Brief the cadets on any safety rules or any other guidelines pertaining to the activity.

1. Divide the group into pairs.
2. Blindfold one cadet. This cadet becomes the walker. The walker must hold their hands up in front of their body, palms out, to protect themselves.
3. The second cadet becomes the talker.
4. The talker must lead the walker on a tour through a pre-determined location in the corps facility.
5. The talker must give directions as simply as possible. (e.g. take two steps forward, turn to your left, take four steps to the right, etc.).
6. The talker is not allowed to touch the walker, unless the walker is about to fall.
7. Have cadets change positions and repeat the activity.

SAFETY

If there are stairs at the corps facility, ensure extra supervision.

REFLECTION

Time: 5 min

GROUP DISCUSSION

TIPS FOR ANSWERING/FACILITATING DISCUSSION

- Establish ground rules for discussion, e.g. everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Manage time by ensuring the cadets stay on topic.
- Listen and respond in a way that indicates you have heard and understood the cadet. This can be done by paraphrasing their ideas.
- Give the cadets time to respond to your questions.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer. Cadets must also have the option to pass if they wish.
- Additional questions should be prepared ahead of time.

SUGGESTED QUESTIONS

Q1. How did it feel to trust others in your group? Why?

Q2. How did it feel to have others trust you? Why?

Q3. How does it feel when someone does not trust you?

Q4. Why is trust an important part of leadership?

Other questions and answers will develop throughout the group discussion. The group discussion should not be limited to only those suggested.

CONCLUSION

REVIEW

Upon completion of the group discussion the instructor will conclude by summarizing the discussion to ensure that all teaching points have been covered. The instructor must also take this opportunity to explain how the cadet will apply this knowledge and/or skill in the future.

TEACHING POINTS

TP1. Trust is a powerful and essential leadership attribute because it is a key to personal involvement.

TP2. A group surrounded with positive experiences and successes will undergo growth in trust and personal confidence.

TP3. Trust can also be lost in a second by carelessness or inconsiderate behaviour.

TP4. Cultivating and protecting the trust that another individual offers should be a fundamental leadership quality to be acquired.

Reinforce those answers given and comments made during reflection, but ensure that the teaching points have been covered. Any teaching point not brought out during the group discussion shall be covered during review.

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Trust is a key leadership attribute that may assist cadets in leading in a peer setting. Participating in trust-building activities may assist cadets by increasing the confidence others have in them and this should increase their own self-confidence.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

C1-006 (ISBN 0-8403-5682-X) Ronhke, C. (1984). *Silver Bullets: A Guide to Initiative Problems, Adventures Games and Trust Activities.* Dubuque, Iowa: Kendall/Hunt Publishing Company.

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COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 14

EO C203.06 – PARTICIPATE IN PROBLEM-SOLVING ACTIVITIES

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

The time spent on each activity is at the discretion of the instructor. If time permits, activities may be conducted consecutively. If the group is large, activities may be conducted concurrently. When conducting activities concurrently, ensure enough supervision is available.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An experiential approach was chosen for this lesson as it allows the cadets to acquire new skills through a direct experience. This approach allows cadets to experience problem-solving activities and define that experience on a personal level. They will be given the opportunity to reflect on and examine what they saw, felt and thought while they were having the experience, and consider how this will relate to future experiences.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to participate in problem-solving activities.

IMPORTANCE

It is important for cadets to participate in problem-solving activities as it may improve their leadership abilities in a peer setting by allowing cadets to practice communication skills, positive group dynamics and problem-solving techniques.

BACKGROUND KNOWLEDGE

Problem-solving activities offer a clearly defined opportunity to practice the skill of problem-solving. Each task is designed so that the group must employ communication skills, positive group dynamics and problem-solving techniques. This problem-solving approach to learning can be useful in developing each individual's awareness of their decision making, responsibilities and cooperation with others. Groups engage the problem by taking advantage of the combined physical and mental strengths of each of its members. Problem solving is an unrivalled way to build morale and a sense of camaraderie.

ACTIVITY

Time: 20 min Method: Experiential

OBJECTIVE

The objective of this activity is to have cadets solve a problem within a peer setting.

RESOURCES

N/A.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

Brief the cadets on any safety rules or any other guidelines pertaining to the activity.

1. Divide the cadets into groups of 8 (preferably 4 males and 4 females).

If there is not an even number of males and females, any alternative to identify the two groups may be used (e.g. hats on/hats off, tunics on/tunics off, etc.)

2. The group must solve the problem in the least number of moves. The object of the game is to have all the males end up on one end of the line and all the females on the other end of the line.
3. Have males and females alternate in line.
4. All moves must be made in pairs. Any two cadets standing side by side (without a space between them) may be considered a pair. Pairs may change with each move.
5. As a pair moves, an empty space is created in the line.
6. The empty space may be filled by another pair.
7. Pairs may not pivot or turn around.

8. The final line must have no spaces or gaps.

There are many ways to solve this problem. Have cadets attempt to solve this problem a number of times, trying to minimize the number of moves on each attempt.

The following sequence illustrates the minimum 4 move solution.

1. Move 1 – Pair 2/3 move to the end of the line past 8.

```
M F  M F  M F  M F
1  (2 3) 4  5  6  7  8

M        F  M F  M F  F  M
1        4  5 6  7 8  (2 3)
```

2. Move 2 – Pair 5/6 move into the slot vacated by the previous pair.

```
M        F  M F  M F  F  M
1        4  (5 6) 7 8  2  3

M M F  F        M F  F  M
1 (5 6) 4        7 8  2  3
```

3. Move 3 – Pair 8/2 move into the slot vacated by the previous pair.

```
M M F  F        M F  F  M
1 5  6  4        7 (8 2) 3

M M F  F  F  F  M        M
1 5  6  4 (8 2) 7        3
```

4. Move 4 – Pair 1/5 move into the slot vacated by the previous pair.

```
M  M F  F  F  F  M        M
(1 5) 6  4  8  2  7        3

      F  F  F  F  M  M  M  M
      6  4  8  2  7  1  5  3
```

SAFETY

N/A.

ACTIVITY

Time: 20 min

OBJECTIVE

The objective of this activity is to have the cadets solve a problem within a peer setting.

RESOURCES

- Masking tape, and
- A stopwatch.

ACTIVITY LAYOUT

Using masking tape make a rectangle shape on the floor, 5 m long and 30 cm wide.

ACTIVITY INSTRUCTIONS

Brief the cadets on any safety rules or any other guidelines pertaining to the activity.

1. Divide the cadets into two groups.
2. Each group forms a line inside the rectangle, one behind the other, facing into the centre of the rectangle.

D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 3-14-1 Cadet Shuffle

3. Each group must exchange places with the other group without touching the floor outside the rectangle.

D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 3-14-2 Cadet Shuffle

4. Time each attempt.
5. For each person that steps outside the rectangle, add 10 seconds to the time.
6. Have cadets attempt this game a number of times, trying to minimize their time on each attempt.

SAFETY

Remind cadets that there is to be no horseplay or pushing other cadets outside the rectangle.

REFLECTION

Time: 5 min

GROUP DISCUSSION

TIPS FOR ANSWERING/FACILITATING DISCUSSION

- Establish ground rules for discussion, e.g. everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Manage time by ensuring the cadets stay on topic.
- Listen and respond in a way that indicates you have heard and understood the cadet. This can be done by paraphrasing their ideas.
- Give the cadets time to respond to your questions.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer. Cadets must also have the option to pass if they wish.
- Additional questions should be prepared ahead of time.

SUGGESTED QUESTIONS

Q1. How did it feel to solve the problem?

Q2. How could your group have improved on its performance?

Q3. Did the group follow a problem-solving technique? Why or why not?

Q4. Did your group members use positive group dynamics when discussing how to solve the problem? Why or why not?

Other questions and answers will develop throughout the group discussion. The group discussion should not be limited to only those suggested.

CONCLUSION

REVIEW

Upon completion of the group discussion the instructor will conclude by summarizing the discussion to ensure that all teaching points have been covered. The instructor must also take this opportunity to explain how the cadet will apply this knowledge and/or skill in the future.

TEACHING POINTS

TP1. The group must employ communication skills, positive group dynamics and problem-solving techniques.

TP2. Problem solving develops each individual's awareness of their decision making, responsibilities and cooperation with others.

TP3. Groups engage the problem by taking advantage of the combined physical and mental strengths of each of its members.

TP4. Problem solving is an unrivalled way to build morale and a sense of camaraderie.

Reinforce those answers given and comments made during reflection, but ensure that the teaching points have been covered. Any teaching point not brought out during the group discussion shall be covered during review.

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Problem solving is a key leadership quality. Practicing the skills of problem-solving should assist cadets in leading in a peer setting by increasing their self-confidence. Problem-solving activities allow cadets to practice communication skills, positive group dynamics and problem-solving techniques.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

C1-006 (ISBN 0-8403-5682-X) Ronhke, C. (1984). *Silver Bullets: A Guide to Initiative Problems, Adventures Games and Trust Activities.* Dubuque, Iowa: Kendall/Hunt Publishing Company.

GOAL MAPPING EXERCISE

SHORT-TERM GOALS

Goal No. 1: _____

Steps To Take: _____

_____

_____

_____

_____

Goal No. 2: _____

Steps To Take: _____

_____

_____

_____

_____

LONG-TERM GOALS

Goal No. 1: _____

Steps To Take: _____

_____

_____

_____

_____

Goal No. 2: _____

Steps To Take: _____

_____

_____

_____

_____

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SKIT FOR DIRECTIVE BEHAVIOUR

(**Setting:** Six first year cadets at a CSTC are getting ready for a barrack inspection to take place in one hour.)

Cadet Red: Okay we have a barrack inspection in an hour, we better get ready.

Cadet Orange: Do we have a uniform inspection at the same time or is it just the room?

Cadet Red: I don't know. Does anyone else?

Cadet Purple: Yes, I know, I asked the staff cadet. We're having a room and uniform inspection at the same time. We're supposed to wear our T-shirts, cadet trousers and parade boots.

Cadet Grey: Man, that's a lot of stuff in just an hour.

Cadet Yellow: No kidding.

Cadet Pink: I don't think I'll be ready.

Cadet Purple: We need to get stuff done fast, so here's what should happen. You two, Cadet Red and Cadet Orange will make the beds and sweep the room. That takes care of the room.

Cadet Grey: What about our uniforms?

Cadet Purple: You, Cadet Grey, take everyone's T-shirts and iron them.

Cadet Yellow: And trousers and boots?

Cadet Purple: You, Cadet Yellow, take everyone's trousers and iron them and Cadet Pink and I will do everyone's boots.

Cadet Red: That didn't take long to come up with a plan. I hope we get everything done.

Cadet Purple: We will, if everyone does their job and right now.

Cadet Red: I'm not great at making beds but I'll do what I'm told.

Cadet Orange: I'm okay at beds, we'll do fine.

Cadet Purple: Okay everyone give your T-shirt to Cadet Grey, your trousers to Cadet Yellow and give me your boots. Everyone, listen up: we a have a lot to do and not a lot of time… so get at it. Be back here in 40 minutes.

Cadet Pink: I'll get my polishing kit.

(ALL CADETS PRETEND TO DELIVER REQUIRED ITEMS TO THE CADET WHO HAS BEEN TASKED.)

(40 MINUTES PASS.)

(ALL CADETS RETURN TO THE ROOM.)

Cadet Red: As everyone can see, the beds are done and the room is swept.

Cadet Orange: The beds aren't great, but they'll pass inspection.

Cadet Purple: How did the ironing go?

Cadet Grey: Here are the T-shirts ready to go. I've never ironed that many in such a short time. I hope they pass the inspection.

Cadet Yellow: All the trousers have the right creases and I don't see any railroad tracks.

Cadet Pink: And we finished everyone's boots.

Cadet Purple: Let's get into our uniforms right now because we're running out of time.

(EVERYONE GETS READY FOR THE INSPECTION.)

Cadet Purple: We look okay. I'm pretty sure we will pass the inspection. Okay everyone stand at attention by your bed, because here comes the staff cadet.

SKIT FOR THE PERSUASIVE BEHAVIOUR

(**Setting:** Six second year cadets at CSTC getting ready for a barrack inspection to take place in one hour.)

Cadet Red: Okay we have a barrack inspection in an hour, we had better get ready.

Cadet Orange: Do we have a uniform inspection at the same time or is it just the room?

Cadet Purple: I asked the staff cadet. We're having a room and uniform inspection at the same time. We're supposed to wear our T-shirts, cadet trousers and parade boots.

Cadet Grey: Man, that's a lot of stuff in just an hour.

Cadet Yellow: No kidding.

Cadet Pink: I don't think I'll be ready.

Cadet Purple: We can be ready, we just need a plan. We need to get beds made, the room swept, T-shirts and trousers ironed and boots done.

Cadet Grey: That's a lot.

Cadet Purple: I have an idea to be able to everything done on time. Would you guys like to hear it?

(EVERYONE NODS IN AGREEMENT.)

Cadet Purple: I think we should divide the work that way we will be able to get things done fast. And if we get people to volunteer to do what they're good at… that should help too. Does that plan make sense to everyone?

(EVERYONE NODS IN AGREEMENT.)

Cadet Purple: I know if we work as a team, we can get everything finished on time and we will look great for the inspection. Okay, so which of us likes making beds?

Cadet Pink: I do. I want to make beds.

Cadet Purple: Anyone else?

Cadet Red: Not me, I like ironing T-shirts, I'll do that.

Cadet Purple: That sounds good. Anyone else want to volunteer?

Cadet Yellow: I like to polish boots. That's what I'll do.

Cadet Orange: Me too. I'll help Cadet Yellow.

Cadet Grey: I don't mind ironing. I'll press everyone's trousers.

Cadet Purple: That leaves me to help with making beds and sweeping the room. Now that everyone has a task, we need to give out our T-shirts, trousers and boots.

(ALL CADETS PRETEND TO DELIVER REQUIRED ITEMS TO THE CADET WHO HAS BEEN TASKED.)

Cadet Red: How long does everyone think this will take?

Cadet Purple: I think it should take about 40 minutes. Does that sound right?

(EVERYONE NODS IN AGREEMENT.)

Cadet Purple: Can everyone be back in 40 minutes?

Cadet Orange: No problem. Let's all be back in 40 minutes.

(EVERYONE NODS IN AGREEMENT.)

(40 MINUTES PASS.)

(ALL CADETS RETURN TO THE ROOM.)

Cadet Purple: As you can see the beds look really good. Thanks Cadet Pink. How did everyone else do?

Cadet Red: T-shirts are finished and look good.

Cadet Yellow: Boots are polished and very shiny. Thanks Cadet Orange.

Cadet Orange: Thanks, we make a good team.

Cadet Grey: Trousers are done too and if I do say so…they look good.

Cadet Purple: I think it's time to get into our uniforms 'cause I believe we're running out of time.

(EVERYONE GETS READY FOR THE INSPECTION.)

Cadet Purple: We look awesome, I know we will pass the inspection. Okay everyone, please stand at attention by your bed, because here comes the staff cadet.

SKIT FOR THE PARTICIPATIVE BEHAVIOUR

(**Setting:** Six senior cadets at CSTC getting ready for a barrack inspection to take place in one hour.)

Cadet Red: Okay we have a barrack inspection in an hour, we had better get ready.

Cadet Orange: Do we have a uniform inspection at the same time or is it just the room?

Cadet Purple: I asked the staff cadet. We're having a room and uniform inspection at the same time. We're supposed to wear our T-shirts, cadet trousers and parade boots.

Cadet Grey: Man, that's a lot of stuff in just an hour.

Cadet Yellow: It's not like we haven't done this before. We'll be okay.

Cadet Grey: We just need to get organized.

Cadet Purple: Let's make a plan. Any ideas?

Cadet Yellow: I know we are going to have to divide up the work, but how?

Cadet Red: What if we pick our jobs from a hat? That could work.

Cadet Grey: How about just doing what we want to do?

Cadet Yellow: I thought, maybe, we could do what we're good at.

Cadet Purple: I really like that idea.

Cadet Orange: Me too, I like doing what I'm good at.

Cadet Red: Okay, sounds good.

Cadet Pink: I'm on board.

Cadet Grey: Besides if we do what we're good at, everything should take less time.

Cadet Purple: Okay so who's good at what?

Cadet Pink: I'm really good at ironing T-shirts.

Cadet Purple: Okay, that's your job and the team is expecting good things.

Cadet Red: My speciality is polishing boots. That should be my task.

Cadet Purple: That's your assignment then. Go ahead.

Cadet Yellow: I am an expert boot polisher. I'll assist Cadet Red.

Cadet Orange: I make the best beds. I should do that.

Cadet Grey: I'm good at making beds too and I'll sweep the floor.

Cadet Purple: Go to it, both of you. I iron trousers very well. That's what I'll do, and I'll stay out of everyone else's business. Okay let's get at it.

(EVERYONE NODS IN AGREEMENT.)

Cadet Red: How long does everyone think this will take?

Cadet Grey: About 40 minutes?

Cadet Orange: Sound goods. Be back in 40 minutes then.

(ALL CADETS PRETEND TO DELIVER REQUIRED ITEMS TO THE CADET WHO HAS BEEN TASKED.)

(40 MINUTES PASS.)

(ALL CADETS RETURN TO THE ROOM.)

Cadet Purple: Wow, this room looks really good. Excellent job, Cadet Orange and Cadet Grey. How did everyone else do?

Cadet Pink: T-shirts are finished and look awesome.

Cadet Yellow: Boots are polished and very shiny. Thanks Cadet Red.

Cadet Red: Thanks, we make a good team.

Cadet Purple: Trousers are done too and if I do say so…they look really good. I think it's time to get into our uniforms because I believe we're running out of time.

(EVERYONE GETS READY FOR THE INSPECTION.)

Cadet Purple: We look excellent, I know this team will pass the inspection. Okay everyone, please stand at attention by your bed, because here comes the staff cadet.

PROBLEM SOLVING SCENARIO

In recently studying about the environment, cadets decide to initiate the creation of a recycling program at the corps.

1. **Confirm the task** – (what must you do?)

_____

2. **Identify the problem** – (what is the problem?)

_____

3. **Determine the Critical Factor** – (what is the overriding problem?)

_____

4. **Develop alternate solutions** – (different ways to solve the problem)

   1) _____
   2) _____
   3) _____

5. **Compare alternatives** – (simplest, safest, most flexible, best use of resources, best solution to the critical factor)

Solutions	Answer Questions

6. **Determine the best solution** – (make a choice)

_____

_____

7. **Implement the solution** – (develop a plan to get the problem solved)

8. **Evaluate the plan and the implementation** – (list some questions to ask for evaluation)

TEMPLATES

TEMPLATE No. 1

Leadership Characteristics

Based on the last training activity, list and or describe the leadership characteristics you observed or displayed.

Leadership Characteristics

TEMPLATE No. 2

Defining Leadership

Based on the last training activity, my definition of leadership is:

Based on the last training activity, my leader's definition of leadership is (what you think your leader would say):

Based on the last training activity, I observed positive leadership when:

TEMPLATE No. 3

Positive Aspects of Leadership

Based on the last training activity, some positive aspects of leadership I displayed or observed are:

TEMPLATE No. 4

Leadership Looks Like/Sounds Like/Feels Like

Based on the last training activity, positive leadership that I observed looked like:

_____

_____

_____

Based on the last training activity, positive leadership that I observed sounded like:

_____

_____

_____

Based on the last training activity, positive leadership that I observed felt like:

_____

_____

_____

Based on the last training activity, attributes I observed and wish to incorporate into my own personal leadership style are:

_____

_____

_____

Based on the last training activity, attributes I wish to avoid incorporating into my own personal leadership style are:

_____

_____

_____

SCENARIOS

Scenario No. 1

You and five other Red Star cadets are tasked to set up a classroom for a class that will begin in ten minutes. You arrive to find the door to your classroom locked. The officer who is supposed to have the key is nowhere to be found.

Scenario No. 2

Your Training Officer is preparing for a weekend exercise and asks you to inventory and restock the three field first aid kits with the help of five cadets.

Scenario No. 3

While on a canteen break, you and other cadets see your best friend take some money that belongs to another cadet.

Scenario No. 4

You enter your corps building with four other cadets to find two male Privates (Pte) in a verbal and physical altercation.

Scenario No. 5

You are told by the Master Warrant Officer (MWO) that the large classroom was not set up properly for the guest speaker who is arriving in 10 minutes. You and three other cadets are told to make sure the classroom is ready on time.

Scenario No. 6

Your corps is holding a mandatory training exercise on the same day as your soccer team is scheduled to play in the regional playoffs. You and three other cadets from your corps play on the same team. Your soccer coach is counting on you to be at the game.

Scenario No. 7

Your Warrant Officer (WO) and Platoon Commander are both absent from the parade night. You and one other cadet are tasked by the Administration Officer to verify the attendance and have your platoon members sign the attendance sheet.

Scenario No. 8

You and five of your friends notice that the parade square needs to be cleaned. Your team accepts this small challenge and have decided to ensure that the parade square is clean for the parade practice for the next period.

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INFORMATION TO RESEARCH

Name (in Full): _____

Date of Birth: _____

Place of Birth: _____

Date of Death (if Deceased): _____

If Deceased, How Did They Die? _____

_____

Information on Their Childhood: _____

_____

_____

Positions of Responsability (if Applicable): _____

_____

_____

_____

Incidents Where Influence Was Displayed: _____

_____

_____

_____

_____

_____

_____

_____

Other Interesting Facts or Information: _____

Why Did You Pick This Person? _____

Where Did You Get Your Information? _____

CHAPTER 4
PO 204 – UPDATE PERSONAL ACTIVITY PLAN

COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 1

EO M204.01 – PERFORM THE PACER

Total Time: 60 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson. Review the PACER information located on Test Admin Manual DVD. The CD/tape for the PACER can be found in The Cooper Institute, *Fitnessgram 8.0 Stand-Alone Test Kit*, Human Kinetics. Information on the PACER can be found in The Cooper Institute, *Fitnessgram/Activitygram Test Administration Manual*, Human Kinetics, pp. 27 to 29.

Set up the training area for the PACER.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TP1 and TP2 to present basic information on heart rate/pulse and cardiovascular endurance.

A practical activity was chosen for TP3, TP5, and TP6 as it is an interactive way to introduce cadets to cardiovascular activities in a safe and controlled environment. This activity contributes to the development of cardiovascular endurance in a fun and challenging setting.

Demonstration and performance was chosen for TP4 as it allows the instructor to explain and demonstrate how to perform the PACER while providing an opportunity for the cadets to practice the PACER under supervision.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall have performed the PACER.

IMPORTANCE

It is important for cadets to increase their physical fitness levels, beginning with their cardiovascular fitness. Performing the PACER for the first time will give each cadet an indication of where they currently are in relation to cardiovascular fitness and how they would like to improve.

Teaching Point 1 **Describe Heart Rate/Pulse**

Time: 5 min Method: Interactive Lecture

DETERMINING HEART RATE/PULSE

An individual's heart rate/pulse may be taken in two locations. It can be taken at the radial artery and the carotid artery. To find the heart rate/pulse, count the number of beats in a 30-second time frame and multiply that number by two.

Radial Pulse

The first is the radial pulse, which is the pulse found on the inside of the wrist just below the base of the thumb. This pulse is taken by placing the tips of the index and middle fingers gently at the radial artery.

RCMP recruiting – Physical Abilities Requirement Evaluation (PARE). Retrieved 21 March 2007, from http://www.rcmp-grc.gc.ca/recruiting /pare_partb_e.htm

Figure 4-1-1 Radial Pulse

Carotid Pulse

The second is the carotid pulse, which is found on both sides in the groove of the neck. This pulse is taken by placing the tips of the index and middle fingers gently at the carotid artery in the groove of the neck.

RCMP recruiting – Physical Abilities Requirement Evaluation (PARE). Retrieved 21 March 2007, from http://www.rcmp-grc.gc.ca/recruiting /pare_partb_e.htm

Figure 4-1-2 Carotid Pulse

The thumb should never be used to take a pulse as the thumb has its own pulse.

Have the cadets find their radial or carotid pulse and practice taking their heart rate/pulse.

NORMAL RANGE FOR RESTING HEART RATE

Resting heart rate is the heart rate of an individual when they are at rest and are relaxed. The normal range for an adult (in this case an adult is considered anyone over the age of eight) is between 60 and 80 beats per minute.

TARGET HEART RATE

The target heart rate is the optimum heart rate at which an individual should train in order to get an effective workout. To calculate an individual's target heart rate, the maximum heart rate (MHR) must first be determined. The MHR is the maximum number of times that the heart is designed to beat in one minute. This is calculated by subtracting an individual's age from 220. The MHR is then multiplied by 0.6 to get the lower exercise range and by 0.8 to get the higher exercise range. The target heart rate for training should fall within this range.

220 – Age = MHR
MHR x 0.6 = Lower Exercise Range
MHR x 0.8 = Higher Exercise Range

Example for a 12 year old:

220 – 12 = 208
208 x 0.6 = 125
208 x 0.8 = 166

The following table lists the exercise ranges for 12 to 18 year olds.

Age	Lower Exercise Range	Higher Exercise Range
12	125	166
13	124	166
14	124	165
15	123	164
16	122	163
17	122	162
18	121	162

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Figure 4-1-3 Target Heart Rate

Those individuals who are just beginning to work out, should work within the lower end of the exercise range and build up. As an individual increases their level of fitness, they can work within the higher end of the exercise range.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. What are the two locations that can be used to take heart rate/pulse?

Q2. What is the normal range for an adult's resting heart rate?

Q3. What is Maximum Heart Rate (MHR)?

ANTICIPATED ANSWERS

A1. Radial pulse and carotid pulse.

A2. Between 60 and 80 beats per minute.

A3. The maximum number of beats the heart is designed to beat in one minute.

Teaching Point 2 **Introduce Methods to Increase Cardiovascular Endurance**

Time: 5 min Method: Interactive Lecture

PACING

Proper pacing is essential to every runner. Pacing is the speed that should be run in order to cover the distance. Knowing a runner's pacing speed is essential to understanding their personal level of fitness. Each individual should pace themselves based on the signs felt from the body and the environmental conditions. Not everyone will be able to run as fast or as long as everyone else in the group. An individual who cannot speak as they are running is considered to be running too fast or too long. This will prevent an individual from being able to run as long as runners who pace themselves correctly.

The "talk test" can be used to determine if someone is running at a proper pace for their level of fitness. An individual who is not able to maintain a conversation is running too fast.

RUNNING FORM

Having a proper running form can make running easier on the body and can increase individual performance. Many of the strategies will come with practice. Basic strategies to help an individual become more efficient include:

- standing upright with the head, shoulders, and hips lined up over the feet;
- keeping the head up and focusing on something ahead of you;
- keeping the chest out in a position that will allow the lungs to gain maximum breathing efficiency;
- keeping the hips slightly forward in a natural alignment;
- allowing the arms to move to the front with the elbows in and the arms coming up in a straight motion; and
- planting the feet directly under the body at the centre of gravity.

PROGRESSION

Progression is the ability to increase the pace and distance that can be run in a specific amount of time. This will increase endurance over time. Participating in any cardiovascular activity will help increase the level of cardiovascular endurance in an individual.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. Why is pacing important?

Q2. What are some basic strategies to improve an individual's running form?

Q3. How can you build up cardiovascular endurance?

ANTICIPATED ANSWERS

A1. A well-paced runner will be able to run for a longer amount of time than someone who is running too fast for their level of fitness.

A2. Basic strategies are:

- standing upright with the head, shoulders, and hips lined up over the feet;
- keeping the head up and focusing on something ahead of you;
- keeping the chest out in a position that will allow the lungs to gain maximum breathing efficiency;
- keeping the hips slightly forward in a natural alignment;
- allowing the arms to move to the front with the elbows in and the arms coming up in a straight motion; and
- planting the feet directly under the body at the centre of gravity.

A3. Cardiovascular endurance can be built up by participating regularly in cardiovascular activities.

Teaching Point 3 **Conduct a Warm-up Session Composed of Light Cardiovascular Exercises**

Time: 5 min Method: Practical Activity

The following information will be explained to the cadets during the warm-up activity.

PURPOSE OF A WARM-UP

A warm-up is composed of stretches and light cardiovascular exercises designed to:

- stretch the muscles;
- gradually increase respiratory action and heart rate;

- expand the muscles' capillaries to accommodate the increase in blood circulation which occurs during physical activity; and
- raise the muscle temperature to facilitate reactions in muscle tissue.

GUIDELINES FOR STRETCHING

The following guidelines should be followed while stretching to prepare for physical activity and to help prevent injury:

- Stretch all major muscle groups, including the back, chest, legs, and shoulders.
- Never bounce while stretching.
- Hold each stretch for 10 to 30 seconds to let the muscles release fully.
- Repeat each stretch two to three times.
- When holding a stretch, support the limb at the joint.
- Static stretching, which is stretching a muscle and holding it in position without discomfort for 10 to 30 seconds, is considered the safest method.
- Stretching helps to relax the muscles and improve flexibility, which is the range of motion in the joints.
- As a guide, allow 10 minutes to warm-up for every hour of physical activity.

The stretches chosen should focus on the areas of the body that will be used the most during the sports activity.

ACTIVITY

OBJECTIVE

The objective of this warm-up activity is to stretch the muscles and perform light cardiovascular exercises to prepare the body for physical activity and to help prevent injuries.

RESOURCES

N/A.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

- Arrange the cadets in either a warm-up circle or in rows (as illustrated in Figures 4-1-4 and 4-1-5).

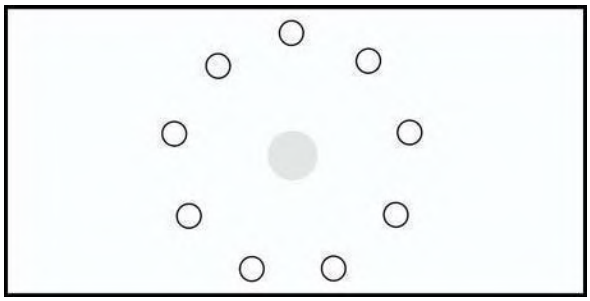

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Figure 4-1-4 Instructor in the Centre of a Warm-up Circle

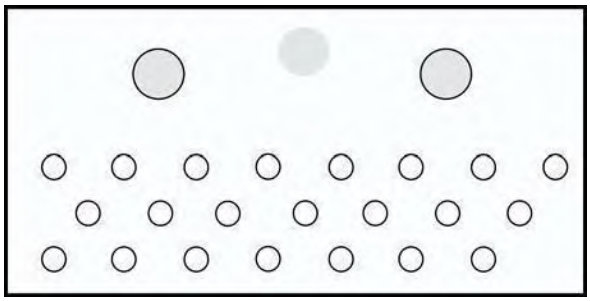

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Figure 4-1-5 Instructor at the Front With Two Assistant Instructors

- Demonstrate before having the cadets attempt each stretch/light cardiovascular exercise.
- Assistant instructors can help demonstrate the exercises and ensure the cadets are performing them correctly.
- Have cadets perform each stretch/light cardiovascular exercise.

Light cardiovascular exercises should be done to warm-up the muscles prior to stretching to avoid injury to or tearing of the muscles. For example, running on the spot for 30 seconds or performing jumping jacks should be performed prior to conducting the stretches located at Annex A.

SAFETY

- Ensure there are at least two arm lengths between the cadets so they can move freely.
- Ensure the cadets perform the stretches and light cardiovascular exercises in a safe manner, following the guidelines for stretching listed in this TP.

CONFIRMATION OF TEACHING POINT 3

The cadets' participation in the warm-up will serve as the confirmation of this TP.

Teaching Point 4 **Demonstrate and Have the Cadets Practice Performing the PACER**

Time: 10 min Method: Demonstration and Performance

OBJECTIVE

The objective of this activity is to run the PACER. The PACER consists of running back and forth a distance of 20 m, at a specified pace that increases each minute. Each cadet will be expected to continue as long as possible.

PACER LAYOUT

The PACER will be set up with two lines (pylons) a distance of 20 m apart. A number of 40 to 60 inch lanes will be set up for the run, as illustrated in Figure 4-1-6.

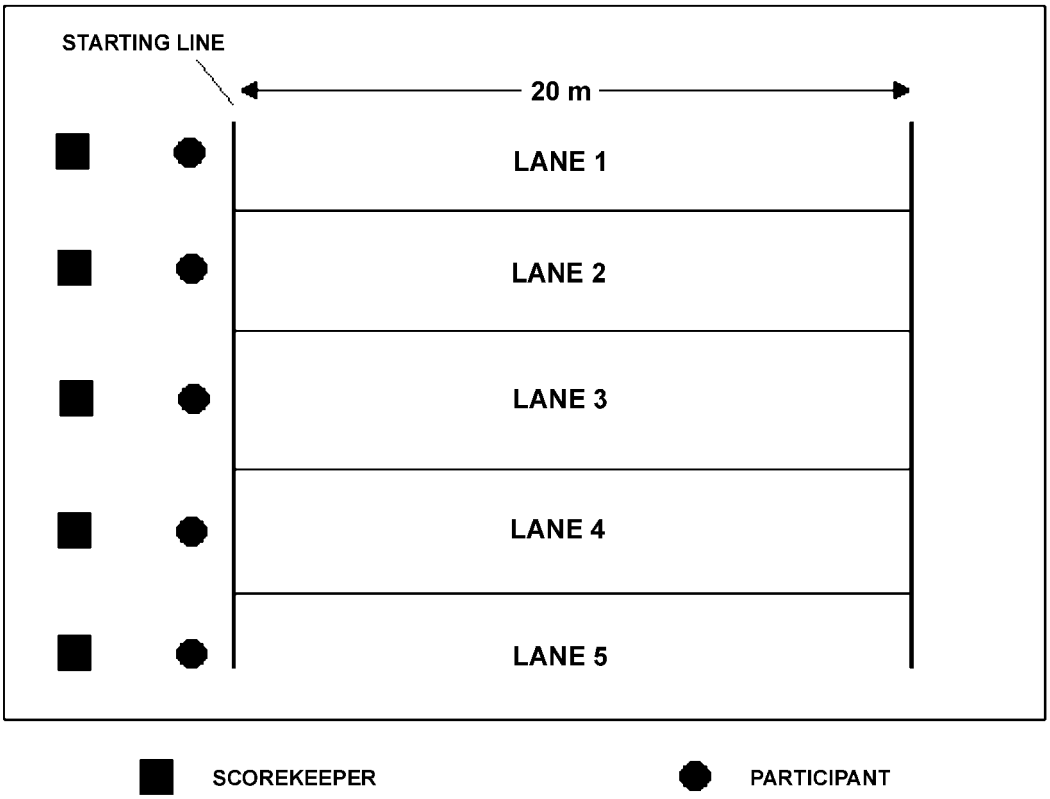

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Figure 4-1-6 PACER Layout

RESPONDING TO THE BEEPS

When running the PACER, cadets will begin after the five-second countdown when the initial beep sounds. The cadets must then run to the opposite line and touch the line by the time the beep sounds. At the sound of the single beep they must turn around and then run back to the opposite line. This continues with the sound of each beep. Every minute, a triple beep will sound that alerts the cadets the pace will increase. If a cadet reaches the line before the beep, they must wait at the line for the next beep to sound before continuing in the other direction. If a cadet does not reach the line before the beep, they must turn around where they are and

return to the other line to get back on pace. The second time a cadet does not cross the opposite line before the beep, the cadet has completed the run.

At this time, play the audio CD/cassette and demonstrate how the PACER is to be conducted.

RECORDING THE RESULTS

The results will be recorded on the PACER *Individual Score Sheet A* located in The Cooper Institute, *Fitnessgram/Activitygram Test Administration Manual*, Human Kinetics, Appendix B. Cadets will be divided into pairs for the PACER. One cadet will run while their partner records their results. Once the first group has finished running, the groups will switch.

Allow cadets to do a practice run of a couple lengths with the audio CD/cassette.

CONFIRMATION OF TEACHING POINT 4

The cadets' participation in practicing the PACER will serve as the confirmation of this TP.

Teaching Point 5 **Supervise While the Cadets Perform the PACER**

Time: 25 min Method: Practical Activity

ACTIVITY

OBJECTIVE

The objective of this activity is for the cadets to perform the PACER.

RESOURCES

- The Cooper Institute, *Fitnessgram 8.0 Stand-Alone Test Kit*, Human Kinetics,
- Pylons (four or more),
- Measuring tape,
- Cassette/CD player,
- Photocopies of the *PACER Individual Score Sheet A*,
- Pens/pencils, and
- First aid kit.

ACTIVITY LAYOUT

- Set up the training area with 40 to 60 inch lanes, and

- Mark a 20 m course with pylons at the ends of each lane.

This activity may be conducted outside.

ACTIVITY INSTRUCTIONS

1. Divide cadets into pairs.
2. Distribute photocopies of the PACER *Individual Score Sheet A* and pens/pencils to one cadet from each pair.
3. Have the cadets with the score sheet write their partner's name on the score sheet and sit behind the starting line ready to record results.
4. Have the cadets running the PACER line up in their respective lanes at the starting line and wait for instructions to begin.
5. Play the audio CD/cassette.
6. The PACER is complete when all cadets have not reached the line before the beep for the second time.
7. Once completed, have the cadets who ran the PACER become the scorekeepers and the scorekeepers become the participants.
8. Distribute photocopies of the PACER *Individual Score Sheet A* and pens/pencils to the second cadet from each pair.
9. Have cadets with the score sheet write their partner's name on the score sheet and sit behind the starting line ready to record results.
10. Have cadets running the PACER line up in their respective lanes at the starting line and wait for instructions to begin.
11. Play the audio CD/cassette.
12. The PACER is complete when all cadets have not reached the line before the beep for the second time.

SAFETY

- Ensure a designated first aider and first aid kit are available.
- Ensure water is available for the cadets after they complete the PACER.

CONFIRMATION OF TEACHING POINT 5

The cadets' participation in the PACER will serve as the confirmation of this TP.

Teaching Point 6 | **Conduct a Cool-down Session Composed of Light Cardiovascular Exercises**

Time: 5 min | Method: Practical Activity

The following information will be explained to the cadets during the cool-down activity.

PURPOSE OF A COOL-DOWN

A cool-down is composed of stretches and light cardiovascular exercises designed to:

- allow the body time to slowly recover from physical activity and to help prevent injury;
- prepare the respiratory system to return to its normal state; and
- stretch the muscles to help relax and restore them to their resting length.

The stretches chosen should focus on the areas of the body that were used the most during the sports activity.

ACTIVITY

OBJECTIVE

The objective of the cool-down is to stretch the muscles and perform light cardiovascular exercises that allow the body time to recover from physical activity, and to prevent injury.

RESOURCES

N/A.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

- Arrange the cadets in either a warm-up circle or in rows (as illustrated in Figures 4-1-4 and 4-1-5).
- Demonstrate before having the cadets attempt each stretch/light cardiovascular exercise.
- Assistant instructors can help demonstrate the movements and ensure the cadets are performing them correctly.
- Have cadets perform each stretch/light cardiovascular exercise.

SAFETY

- Ensure there are at least two arm lengths between the cadets so they can move freely.

- Ensure the cadets perform the stretches and light cardiovascular exercises in a safe manner, following the guidelines for stretching listed in TP3.

CONFIRMATION OF TEACHING POINT 6

The cadets' participation in the cool-down will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in the PACER will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

The results of the PACER are not to be used for evaluation of the cadets. The results are for each cadet to track their own progress in cardiovascular fitness when they perform the PACER again in M204.05 (Perform the PACER) and in C204.01 (Perform the PACER), for those corps that choose to conduct this EO.

CLOSING STATEMENT

Assessing cardiovascular fitness will allow you to identify your present level of fitness and how you can strive to increase it.

INSTRUCTOR NOTES/REMARKS

Assistant instructors may be used for extra supervision or to record the results of cadets.

REFERENCES

C0-002 (ISBN 0-88962-630-8) LeBlanc, J. & Dickson, L. (1997). *Straight Talk about Children and Sport: Advice for Parents, Coaches, and Teachers.* Oakville, ON and Buffalo, NY: Mosaic Press.

C0-057 Martha Jefferson Hospital. (2001). *Warm-ups.* Retrieved 26 October 2006, from http://www.marthajefferson.org/warmup.php.

C0-058 Webb Physiotherapists Inc. *Running Exercises.* Retrieved 26 October 2006, from http://www.physionline.co.za/conditions/article.asp?id=46.

C0-059 Webb Physiotherapists Inc. *Exercise Programme for Squash, Tennis, Softball, Handball.* Retrieved 25 October 2006, from http://www.physionline.co.za/conditions/article.asp?id=49.

C0-060 Impacto Protective Products Inc. (1998). *Exercises.* Retrieved 25 October 2006, from http://www.2protect.com/work3b.htm.

C0-061 City of Saskatoon, Community Services Department. *Stretch Your Limits: A Smart Guide to Stretching for Fitness.* Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/.

C0-089 (ISBN 0-936070-22-6) Anderson, B. (2000). *Stretching: 20th Anniversary.* (Rev. Ed.) Bolinas, CA: Shelter Publications, Inc.

C0-095 (ISBN 0-7360-5962-8) The Cooper Institute. (ND). *Fitnessgram/Activitygram Test Administration Kit: Fitnessgram 8.0 Stand-Alone Test Kit.* Windsor, ON: Human Kinetics.

C0-096 Kaleida Health Cardiovascular Services. *Target Heart Rate.* Retrieved 20 February 2007, from http://www.cardiovascularservices.org/HeartRate.html.

C0-097 Government of Ontario. (2006). *Target Heart Rate Chart.* Retrieved 20 February 2007, from http://www.active2010.ca/index.cfm?fa=english_tools.target.

C0-098 (ISBN 0-7360-0212-X) Bompa, T.O. (2000). *Total Training for Young Champions: Proven Conditioning Programs for Athletes Ages 6 to 18.* Windsor, ON: Human Kinetics.

C0-099 Manitoba Marathon. Manitoba Marathon: *Training-Easy Run Pacing.* Retrieved 20 February 2007, from http://www.manitobamarathon.mb.ca/training_pacing.aspx.

C0-102 (ISBN 0-662-69515-1) St. John Ambulance. (2006). *First on the Scene: Student Reference Guide.* Ottawa, ON: Her Majesty the Queen of Right in Canada.

C0-136 RCMP Recruiting. *RCMP Recruiting–Physical Abilities Requirement Evaluation (PARE).* Retrieved 21 March 2007, from http://www.rcmp-grc.ca/recruiting/pare_partb_e.htm.

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COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 2

EO M204.02 – IDENTIFY HEALTHY FOOD CHOICES

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Ensure there are sufficient copies of Health Canada, *Canada's Food Guide*, Her Majesty the Queen in Right of Canada, for each cadet.

Photocopy handouts located at Annex B for each cadet.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TP1 and TP2 to introduce Health Canada, *Canada's Food Guide*, Her Majesty the Queen in Right of Canada.

An in-class activity was chosen for TP3 as it is an interactive way to provoke thought and stimulate interest in healthy eating among cadets.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to identify healthy food choices.

IMPORTANCE

It is important for cadets to identify healthy food choices because it is a significant component of living a healthy lifestyle. Choosing healthy foods may help the body to grow strong and help to prevent illnesses.

Teaching Point 1 **Introduce *Canada's Food Guide***

Time: 10 min Method: Interactive Lecture

Distribute a copy of Health Canada, *Canada's Food Guide*, Her Majesty the Queen in Right of Canada, to each cadet so they may follow along during the lesson.

CANADA'S FOOD GUIDE

Health Canada, *Canada's Food Guide*, Her Majesty the Queen in Right of Canada, describes how much of each type of food is required as part of a healthy eating pattern. There are four food groups in the guide; vegetables and fruit, grain products, milk and alternatives, and meat and alternatives. The front page of the guide shows a rainbow with samples of the type of foods that fit in these four categories. The size of the arcs in the rainbow represents the proportion of each food group that makes up a healthy eating pattern.

Vegetables and Fruit

Consuming plenty of vegetables and fruit may help reduce the risk of cardiovascular disease and certain types of cancer. This food group provides nutrients such as carbohydrates, vitamin A, vitamin C, potassium, magnesium, and B vitamins. Vegetables and fruit are the most prominent food group in the guide because of the important role these foods play in healthy eating. Examples of foods from the vegetable and fruit group include:

- fresh vegetables/fruit,
- frozen vegetables/fruit,
- canned vegetables/fruit,
- dried vegetables/fruit, and
- vegetables/fruit juices.

Grain Products

Consuming the required amount of grain products may help to reduce the risk of cardiovascular disease. Grain products, particularly whole grains, are a source of fibre and are usually low in fat. Whole grains contain all three edible layers of the grain seed or kernel, which provides a greater combination of nutrients. This food group provides nutrients such as carbohydrates, B vitamins (e.g. thiamin, riboflavin, niacin and folate), iron, zinc, and magnesium. The grain products food group is the second most prominent food group in the guide. Examples of foods from the grain products group include:

- grain,
- cereal,
- pasta,
- rice, and
- products made with grain flour (including corn flour).

Milk and Alternatives

Consuming the required amount of milk and alternatives may help to develop strong bones and reduce the risk of osteoporosis. This food group provides nutrients such as calcium, vitamin A, vitamin D, vitamin B12, riboflavin, zinc, magnesium, potassium, protein and fat. Examples of foods from the milk and alternatives group include:

- milk products, such as:
    - canned milk (evaporated milk),
    - powdered milk,
    - cheese, and
    - yogurt; and
- alternative milk products, such as fortified soy beverage.

Meat and Alternatives

Consuming the required amount of meat and alternatives food group provides nutrients such as iron, zinc, magnesium, B vitamins (e.g. thiamin, riboflavin, niacin, vitamin B6, and vitamin B12), protein, and fat. Examples of foods from the meat and alternatives group include:

- meat products, such as:
    - eggs,
    - fish,
    - meat,
    - poultry, and
    - shellfish; and
- alternative meat products, such as:
    - legumes (e.g. chick peas),
    - kidney beans,
    - lentils, nuts/seeds, and
    - tofu.

FOOD GUIDE SERVINGS

A food guide serving is a specified quantity of food from each of the food groups. It is used to help people understand how much food is recommended every day from each of these groups. This is generally close to what a person would eat in one sitting (e.g. one apple). When eating out, food portions are often large and contain more than one serving of a food group. It is important to recognize the food groups that make up a meal and how much food is on the plate, in order to count the food guide servings in a meal.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. What are the four food groups described in Health Canada, *Canada's Food Guide*, Her Majesty the Queen in Right of Canada?

Q2. What are three foods that fit in the grain products group?

Q3. What is a food guide serving?

ANTICIPATED ANSWERS

A1. The four food groups are vegetables and fruit, grain products, milk and alternatives, and meat and alternatives.

A2. Foods that fit in the grain products group are grains, cereals, pasta, rice, and products made with grain flour (including corn flour).

A3. A food guide serving is a specified quantity of each type of food, used for measuring how much food is recommended for every day.

Teaching Point 2 **Introduce the Recommended Daily Intake**

Time: 5 min Method: Interactive Lecture

RECOMMENDED DAILY INTAKE

The recommended daily intake outlined in Health Canada, *Canada's Food Guide*, Her Majesty the Queen in Right of Canada, (p. 2) describes what amount of food people should eat based on age and gender. The recommended number of servings a child (male and female) between the ages of 9 to 13 should eat in one day is as follows

- six servings of vegetables and fruit,
- six servings of grain products,
- three to four servings of milk and alternatives, and
- one to two servings of meat and alternatives.

Following the recommended daily intake in Health Canada, *Canada's Food Guide*, Her Majesty the Queen in Right of Canada, will help people to:

- take in the required vitamins, minerals and other nutrients;
- reduce the risk of obesity, type two diabetes, heart disease, certain types of cancer and osteoporosis; and
- achieve overall health and vitality.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. What does the recommended daily intake describe?

Q2. How many daily servings of grain products are recommended for a child between the ages of 9 to 13?

Q3. What is one benefit of following the recommended daily intake?

ANTICIPATED ANSWERS

A1. The amount of food people should eat daily based on age and gender.

A2. Six.

A3. Following the recommended daily intake in Health Canada, *Canada's Food Guide*, Her Majesty the Queen in Right of Canada, will help people to:

- take in the required vitamins, minerals and other nutrients;
- reduce the risk of obesity, type two diabetes, heart disease, certain types of cancer, and osteoporosis; and
- achieve overall health and vitality.

Teaching Point 3 **Conduct an Activity Using *Canada's Food Guide***

Time: 10 min Method: In-class Activity

ACTIVITY

OBJECTIVE

The objective of this activity is to have the cadets identify healthy food choices.

RESOURCES

- Pens/pencils,
- Scissors, and
- Glue/tape.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Distribute the handout (located at Annex B) to each cadet.
2. Allow approximately five minutes for cadets to choose the food items that they would pack in their lunch bag to create a meal that includes at least one serving from each food group. Have cadets complete the food guide servings table on the last page of Annex B.
3. Discuss the choices that the cadets have made, whether they are healthy, and in which food group they belong.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 3

The cadets' participation in the activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in the activity in TP3 will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Choosing healthy foods may help the body to grow strong and help to prevent illnesses. This knowledge may also assist in preparing nutritious meals. Identifying healthy food choices is important to choosing a healthy lifestyle.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

C0-057 Martha Jefferson Hospital. (2001). *Warm-Ups.* Retrieved 26 October 2006, from http://www.marthajeffeson.org/warmup.php.

C0-058 Webb Physiotherapists Inc. *Running Exercises.* Retrieved 26 October 2006, from http://www.physionline.co.za/conditions/article.asp?id=46.

C0-059 Webb Physiotherapists Inc. *Exercise Programme for Squash, Tennis, Softball, Handball.* Retrieved 25 October 2006, from http://www.physionline.co.za/conditions/article.asp?id=49.

C0-060 Impacto Protective Products Inc. (1998). *Exercises.* Retrieved 25 October 2006, from http://www.2protect.com/work3b.htm.

C0-061 City of Saskatoon, Community Services Department. *Stretch Your Limits: A Smart Guide to Stretching for Fitness.* Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/.

C0-100 (ISBN 0-662-44467-1) Health Canada. (2007). *Canada's Food Guide.* Ottawa, ON: Her Majesty the Queen in Right of Canada.

C0-101 (ISBN 0-662-44470-1) Health Canada. (2007). *Eating Well With Canada's Food Guide: A Resource for Educators and Communicators.* Ottawa, ON: Her Majesty the Queen in Right of Canada.

C0-138 WP Clipart. *Food Section.* Retrieved 29 March 2007, from http://www.wpclipart.com/food/index.html.

COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 3

EO M204.03 – IDENTIFY THE BENEFITS OF A HEALTHY LIFESTYLE

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

A group discussion was chosen for this lesson as it allows the cadets to interact with their peers and share their knowledge, experiences, opinions, and feelings about the benefits of a healthy lifestyle.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to identify the benefits of a healthy lifestyle.

IMPORTANCE

It is important for cadets to identify the benefits of a healthy lifestyle because it is key to becoming physically fit, which is one of the aims of the Cadet Program.

Teaching Point 1 **Discuss Personal Decisions That Can Be Made to Achieve a Healthy Lifestyle**

Time: 10 min Method: Group Discussion

BACKGROUND KNOWLEDGE

The point of the group discussion is to draw the following information from the group using the tips for answering/facilitating discussion and the suggested questions provided.

SMOKING

Known facts about smoking include:

- adolescence is the usual time a person will start smoking;
- youth in grades six and seven are considered to be at the critical stage for deciding whether to experiment with smoking; and
- cigarette smoking is more addictive and harder to quit than some other substances such as heroin and cocaine.

Known physical effects of smoking include:

- dry skin and premature wrinkling;
- a longer healing time for a smoker's acne;
- hair loss in some teenagers;
- yellow teeth and tooth decay; and
- an increased occurrence of oral cancer in some people.

Statistics about smoking:

- It is estimated that 55% of young men and 51% of young women who start smoking by the age of 15 will die before age 70 if they continue to smoke.
- Tobacco kills more than 40 000 Canadians every year.

Consequences of smoking may include:

- cancer of the lungs, mouth, sinuses, throat, brain, breast, uterus, bladder, kidney, thyroid, lymph glands, and blood;
- serious ailments such as bronchitis, pneumonia, emphysema, strokes, heart attacks, ulcers, cataracts, gum disease, tooth decay, ear infections, dry skin, early aging, and impotence;
- respiratory problems such as increased coughing, phlegm, wheezing, chest colds, and shortness of breath;
- asthma attacks or increased asthma symptoms;
- cold fingers and toes due to poor circulation; and

- a dulled sense of smell and taste.

NUTRITION CHOICES

Following Health Canada, *Canada's Food Guide*, Her Majesty the Queen in Right of Canada, will ensure a person eats the amount and type of food that is recommended to help achieve a healthy lifestyle. Eating the amount and type of food recommended and following the tips in Health Canada, *Canada's Food Guide*, Her Majesty the Queen in Right of Canada, will help:

- meet the body's needs for vitamins, minerals, and other nutrients;
- reduce the risk of obesity, type 2 diabetes, heart disease, certain types of cancer, and osteoporosis; and
- contribute to overall health and vitality.

Just as important as eating the right amount of food is eating the right types of foods. People should be encouraged to eat foods that are lower in fat, sugar, and salt.

The benefits of eating well include:

- better overall health,
- lower risk of disease,
- healthy body weight,
- feeling and looking better,
- more energy, and
- stronger muscles and bones.

REGULAR PHYSICAL ACTIVITY

Benefits of regular physical activity contribute to the following:

- overall health,
- improved fitness,
- better posture and balance,
- weight control,
- stronger bones and muscles,
- energy level, and
- an increase in relaxation and reduction in stress.

Health risks that may result from inactivity include:

- premature death,
- heart disease,
- obesity,
- high blood pressure,
- adult-onset diabetes (type 2),

- osteoporosis,
- stroke,
- depression, and
- various forms of cancer.

63% of Canadians are not active enough to get the health benefits they need from physical activity.

Youth require 60 to 90 minutes of physical activity every day.

GROUP DISCUSSION

TIPS FOR ANSWERING/FACILITATING DISCUSSION

- Establish ground rules for discussion, e.g. everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Manage time by ensuring the cadets stay on topic.
- Listen and respond in a way that indicates you have heard and understood the cadet. This can be done by paraphrasing their ideas.
- Give the cadets time to respond to your questions.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer. Cadets must also have the option to pass if they wish.
- Additional questions should be prepared ahead of time.

SUGGESTED QUESTIONS

Q1. What do you think is a healthy lifestyle? What are some of the choices you can make in your daily life to help you achieve a healthy lifestyle?

Q2. What are some of the benefits of choosing not to smoke? What are the greatest factors that would influence your decision?

Q3. How can nutrition choices affect your overall health?

Q4. What are some benefits you can get from being physically active in your daily life? What can you do to improve your level of daily physical activity?

Other questions and answers will develop throughout the group discussion. The group discussion should not be limited to only those suggested.

Reinforce those answers given and comments made during the group discussion, ensuring the teaching point has been covered.

CONFIRMATION OF TEACHING POINT 1

The cadets' participation in the group discussion will serve as the confirmation of this TP.

Teaching Point 2 **Discdiscuss the Physical Benefits of a Healthy Lifestyle**

Time: 10 min Method: Group Discussion

BACKGROUND KNOWLEDGE

The point of the group discussion is to draw the following information from the group using the tips for answering/facilitating discussion and the suggested questions provided.

PHYSICAL BENEFITS OF A HEALTHY LIFESTYLE

The best way to keep the body physically healthy is to combine three types of activities in a daily routine: endurance, flexibility, and strength activities.

Healthy Growth and Development

Studies, in recent years, have shown that over half of young people are not active enough for healthy growth and development. According to the Canadian Community Health Survey in 2000–2001, 56% of Canadian's aged 12 to 19 were physically inactive and as many as 82% may not have been active enough to meet international guidelines for optimal growth and development.

Healthy Heart

Eating more nutritious foods, not smoking, and being physically active can help maintain a healthy heart. A healthy body weight, for example, can help to lower risk factors for heart disease by decreasing blood cholesterol, fat levels, and high blood pressure. Cardiovascular disease, such as heart disease, stroke, and atherosclerosis (ather-o-skleh-ro-sis) – hardening and narrowing of the arteries, is the number one cause of premature death in Canada.

Stronger Bones and Muscles

Physical activity, especially strength activities, can contribute to the maintenance of bone mass through adulthood, by helping develop the bony and muscular tissue during childhood. Daily physical activity in adolescence and early adulthood is positively correlated to mineral density and the skeleton's bone density. This development of mineral density and bone mass may help reduce the risk of osteoporosis later in life. Strength activities will lead to stronger muscles and help them stay strong over time. Stronger bones and muscles can also lead to better posture and balance among people of all ages.

Weight Control

Physical activity affects body composition and helps weight loss. Active individuals are at less risk of becoming overweight. Having a healthy body means maintaining a healthy body weight. Having a healthy weight does not necessarily mean being extremely slim and having a low body weight. A healthy body weight should encourage physical, social, and psychological well-being. In 1988, Health and Welfare Canada introduced the "healthy weights strategy". This strategy promotes healthy eating opposed to dieting and regular physical activity versus intense exercise. For adults, healthy body weight can be determined by the Body Mass Index (BMI) and the waist-hip ratio (WHR).

The BMI is intended for individuals 18 years of age and older. As individuals under 18 years of age are still developing, they should not rely solely on the BMI to determine if they have a healthy body weight.

Information on BMI can be found at http://www.hc-sc.gc.ca/fn-an/nutrition/weights-poids/guide-ld-adult/bmi_chart_java-graph_imc_java_e.html.

BMI and WHR calculators can be found at www.preventdisease.com/healthtools/tools.html#bmi.

According to the World Health Organization (WHO) in 2002, there were approximately one billion people in the world who were overweight or obese and only 800 million who were hungry/starving or underweight. According to the Canadian Community Health Survey conducted in 2004, obesity rates in adolescents aged 12 to 17 have tripled from 3% to 9% in the past 25 years.

Being inactive and/or overweight increases the risk of heart disease, osteoarthritis, diabetes, various cancers, and back injuries.

Lower Health Risks

Regular participation in at least 30 minutes of moderate physical activity can help prevent some chronic conditions, such as:

- **Cardiovascular Disease (CVD).** Regular physical activity can reduce the risk of heart disease by as much as 50%.
- **Osteoporosis.** In Canada, about one out of four women and one out of eight men over 50 years of age, develops osteoporosis. The risk of osteoporosis may be reduced through regular physical activity during childhood and adolescence.
- **Cancer.** Regular physical activity can help in the prevention of certain types of cancer, such as breast and colon cancer. Research shows that overall 30% to 35% of all cancers can be prevented by eating well, maintaining a healthy weight, and by including physical activity into one's lifestyle.

- **Type 2 Diabetes.** Physical activity, together with decreased fat intake, can help in the prevention of type 2 diabetes by as much as 58%.

Studies have shown that females are less active than males. In 2000, only 30% of females and 40% of males were considered active enough to meet the minimum requirements of daily physical activity. This dropped to 12% for females and 24% for males by 2002.

GROUP DISCUSSION

TIPS FOR ANSWERING/FACILITATING DISCUSSION

- Establish ground rules for discussion, e.g. everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Manage time by ensuring the cadets stay on topic.
- Listen and respond in a way that indicates you have heard and understood the cadet. This can be done by paraphrasing their ideas.
- Give the cadets time to respond to your questions.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer. Cadets must also have the option to pass if they wish.
- Additional questions should be prepared ahead of time.

SUGGESTED QUESTIONS

Q1. What are some physical benefits to living a healthy lifestyle? What can you do individually to achieve these benefits?

Q2. How does living a healthy lifestyle affect a person's ability to grow and develop? What healthy lifestyle choices can you make to ensure this?

Q3. What does it mean to have a healthy body weight? How can this be achieved? What are the best determinants of a healthy body weight for a fully grown adult?

Q4. What types of chronic conditions/illnesses could you avoid by living a healthy lifestyle? What can you do to avoid these conditions/illnesses later in life?

Other questions and answers will develop throughout the group discussion. The group discussion should not be limited to only those suggested.

Reinforce those answers given and comments made during the group discussion, ensuring the teaching point has been covered.

CONFIRMATION OF TEACHING POINT 2

The cadets' participation in the group discussion will serve as the confirmation of this TP.

Teaching Point 3 **Discuss the Psychological Benefits of a Healthy Lifestyle**

Time: 5 min Method: Group Discussion

BACKGROUND KNOWLEDGE

The point of the group discussion is to draw the following information from the group using the tips for answering/facilitating discussion and the suggested questions provided.

PSYCHOLOGICAL BENEFITS OF A HEALTHY LIFESTYLE

Positive Self-esteem

Positive self-esteem requires a person to have a good opinion of their own character and abilities. Self-esteem can be measured by how worthy individuals feel in various social, physical, and academic situations. Individuals with high self-esteem generally view themselves in a positive manner and can appreciate their abilities, as well as their potential and limitations. Those with low self-esteem generally tend to be more passive and dependent in reacting to stress and demands and are more likely to conform to social pressures, while also being pessimistic about their abilities.

Making new friends is easier when a youth participates in activities involving other youth. For example, if an individual participates in a sports team or a recreational club, there are more opportunities to meet new people. As well, an individual who is living a healthy lifestyle, is often more self-confident, making it easier to meet new people and make friends. According to the Canadian Fitness and Lifestyle Research Institute, physical activity appears to have a positive influence on youth's social lives and the number of same-gender and opposite-gender friends they have.

Positive Self/Body Image

Self/body image is how an individual perceives their own physical characteristics and how they evaluate themselves based on this perception of self. This is then formulated into a self/body image as an individual perceives their own body, how it looks to them, and how they think it looks to others. Having a positive self/body image comes with the idea that a wider range of body weights, shapes, and sizes are healthy and normal. The reality of genetics encompasses the fact that not all people can be the same shape and size and that not everyone can or should meet the body type seen often in the media.

Higher Energy

Nutrition choices have a direct effect on the amount of energy the body produces. Although the body requires foods from all four food groups, Health Canada recommends that 55% of calories should come from carbohydrates, which should be in the form of starches and natural sugars. These starches and sugars are digested and changed into glucose and are burned during regular physical activity.

Physical activity can also lead to high energy as it determines the amount of energy expended and therefore leads to energy balance (the amount of energy ingested in the forms of carbohydrates, fat, protein and alcohol, should equal the amount expended). Physical activity increases oxygen throughout the body. Endorphins are also increased, therefore, leading to higher levels of energy. Many studies show that physically active youth tend to sleep and eat better than those who are more sedentary or less active.

Reduced Stress/Increased Relaxation

Regular physical activity appears to be associated with better self-esteem and a decrease in anxiety and depression symptoms in normal situations. Flexibility activities are especially effective in ensuring the muscles are relaxed. Individuals who are more physically active and eat balanced, nutritious meals are more likely to have positive self-esteem and self/body image, leading to a reduction in anxiety and negative feelings about their sense of self.

GROUP DISCUSSION

TIPS FOR ANSWERING/FACILITATING DISCUSSION

- Establish ground rules for discussion, e.g. everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Manage time by ensuring the cadets stay on topic.
- Listen and respond in a way that indicates you have heard and understood the cadet. This can be done by paraphrasing their ideas.
- Give the cadets time to respond to your questions.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer. Cadets must also have the option to pass if they wish.
- Additional questions should be prepared ahead of time.

SUGGESTED QUESTIONS

Q1. What is self-esteem? How can self-esteem be improved by living a healthy lifestyle?

Q2. How does making healthy food choices and maintaining an active lifestyle affect an individual's self-esteem?

Q3. What is self/body image? How can you strive to maintain a positive self/body image?

Q4. Has anyone ever noticed that after doing a physical activity you feel energized? Why do you think this happens?

Q5. What are some ways you can reduce stress and increase your level of relaxation?

Other questions and answers will develop throughout the group discussion. The group discussion should not be limited to only those suggested.

Reinforce those answers given and comments made during the group discussion, ensuring the teaching point has been covered.

CONFIRMATION OF TEACHING POINT 3

The cadets' participation in the group discussion will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in the group discussions will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

The handout located at Annex C may be given to the cadets to be completed for their personal use.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

It is important to learn the methods to achieve a healthy lifestyle as choices made regarding health during youth will have an effect into adulthood. Making healthy food choices and participating in regular physical activity will increase energy, prevent diseases, increase strength, and in many cases, lead to a healthier lifestyle.

INSTRUCTOR NOTES/REMARKS

Points that arise from the group discussions in TP1 to TP4 should be placed on a whiteboard/flipchart/OHP to be referenced during the conclusion of the lesson.

The handout located at Annex C is not to be used by the instructor. It is a personal resource for each cadet.

REFERENCES

C0-100 (ISBN 0-662-44467-1) Health Canada. (2007). *Canada's Food Guide.* Ottawa, ON: Her Majesty the Queen in Right of Canada.

C0-104 (ISBN 0-662-26628-5) Public Health Agency of Canada. (ND). *Handbook for Canada's Physical Activity Guide to Healthy Active Living.* Ottawa, ON: Public Health Agency of Canada.

C0-105 (ISBN 0-662-32897-3) Public Health Agency of Canada. (2002). *Teacher's Guide to Physical Activity for Youth 10-14 Years of Age.* Ottawa, ON: Her Majesty the Queen in Right of Canada.

C0-108 (ISBN 0-662-28677-4) Health Canada. (2000). *The Vitality Approach: A Guide for Leaders.* Ottawa, ON: Her Majesty the Queen in Right of Canada.

C0-126 (ISBN 0-9687739-3-1) The Lung Association. (2000). *Lungs for Life: Grade 7.* Ontario, Canada: The Lung Association.

C0-127 Winnipeg in Motion. *In Motion: Prevention of...* Retrieved 12 March 2007, from http://www.winnipeginmotion.ca/prevention/.

C0-127 Winnipeg in Motion. *In Motion: Children and Youth.* Retrieved 12 March 2007, from http://www.winnipeginmotion.ca/youths/facts.php.

C0-128 CAHPERD Advocacy Action Centre. (1996–2006). *Facts and Stats.* Retrieved March, 12, 2007, from http://www.cahperd.ca/eng/advocacy/facts/facts_stats.cfm.

C0-129 Canadian Sugar Institute. (2005). *Clips on Sugars: For Up-to-Date Information on Sugars in Healthy Eating.* Retrieved 12 March 2007, from http://www.sugar.ca.

C0-130 (ISBN 2-550-360-427-7) Thibault, G. (2000). *Physical Activity, a Determinant of Health in Youth: Advisory Option of the Kino-Québec Scientific Committee.* Quebec: Government of Quebec.

C0-133 (ISBN 1-895724-51-1) Cragg, S. & Cameron, C. (2006). *Physical Activity of Canadian Youth – An Analysis of 2002 Health Behaviour in School-aged Children Data.* Ottawa, ON: Canadian Fitness and Lifestyle Research Institute.

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COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 4

EO M204.04 – UPDATE PERSONAL ACTIVITY PLAN

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson. Photocopy the cadets' personal activity plans from the Green Star Program and Annex D for each cadet.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An in-class activity was chosen for this lesson as it is an interactive way to reinforce the importance of goal setting within a personal activity plan.

INTRODUCTION

REVIEW

Review the following information on goal-setting from EO M104.02 (Develop a Personal Activity Plan).

Definition of a Goal

A goal is an aim an individual or group works toward; an object of ambition/effort.

Short-term and Long-term Goals

Short-term goals are those that can be met in a short period of time and are often set to achieve long-term goals. For example, if an individual strives to run five kilometres by the end of the year, their short-term goal could be to run two kilometres within two months. By setting achievable short-term goals, individuals can measure their progress in the pursuit of their long-term goals.

Individual Goals

The purpose of setting individual goals is to experience personal levels of achievement. Individual goals should be based on personal performance and not on the performance of others. They should be designed to increase personal skill, ability, or physical condition.

Developing Goals

Goals should be set with a specific purpose in mind. They should be achievable and measurable, allowing individuals to track progress. A goal should be something an individual can be motivated toward achieving.

Use the mnemonic “SMART” to remember the factors involved in the setting of goals.

When developing short-term and long-term goals, ensure they have the following characteristics:

Specific: Ensure the aim of the goal is clearly set out and defined.
Measurable: Ensure the goal has defined standards to work toward that are measurable.
Achievable: Ensure the goal is realistic and can be met.
Relevant: Ensure the goal is worthwhile.
Timed: Ensure there is a set time frame in which to achieve the goal.

OBJECTIVES

By the end of this lesson the cadet shall be expected to update their personal activity plan (from the Green Star Program) for the training year.

IMPORTANCE

In order to help achieve success in physical fitness, it is important to know how to set personal fitness goals and to create an activity plan that will help to achieve those goals. This is important as physical fitness is one of the aims of the Cadet Program.

Teaching Point 1 — **Have Cadets Adjust Their Personal Activity Plan (From Green Star) for the Training Year**

Time: 25 min — Method: In-class Activity

ACTIVITY

OBJECTIVE

The objective of this activity is for cadets to adjust their personal activity plan (from the Green Star Program) for the training year.

RESOURCES

- Each cadet’s personal activity plan from the Green Star Program,
- Pens/pencils, and
- Handout of blank personal activity plan found at Annex D.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

- Distribute the cadets’ personal activity plans from the Green Star Program.

- Have the cadets review their personal activity plans to see if they were “SMART” and if they accomplished their goals.
- Discuss the PACER and how the results should fit into adjusting their goals.
- Distribute blank personal activity plans from Annex D.
- Give cadets time to adjust and update their personal activity plans for the Red Star Program.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 1

The cadets’ participation in the activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets’ participation in the activity in TP1 will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

One of the aims of the Cadet Program is physical fitness. In order to help you achieve success in physical fitness, it is important to know how to set personal fitness goals and create an activity plan that will help to achieve those goals.

INSTRUCTOR NOTES/REMARKS

Ensure a copy of each cadet’s personal activity plan is photocopied and placed in their training folder for further training purposes. The plans are not to be used as a method of evaluation.

Resources such as: *Canada’s Physical Activity Guide for Youth, Let’s Get Active! Magazine for Youth 10-14 Years of Age and Family Guide to Physical Activity for Youth 10-14 Years of Age* can be ordered from www.paguide.com through the Public Health Agency of Canada to be given as a handout to each cadet.

REFERENCES

C0-019 (ISBN 0-7894-7147-7) Eaton, J. & Johnson, R. (2001). *Coaching Successfully.* New York: Dorling, Kindersley.

C0-024 (ISBN 0-19-541731-3) Barber, K. (Ed.). (2001). *The Canadian Oxford Dictionary.* Don Mills, ON: Oxford University Press.

C0-104 (ISBN 0-662-26628-5) Public Health Agency of Canada. (ND). *Handbook for Canada's Physical Activity Guide to Healthy Active Living.* Ottawa, ON: Public Health Agency of Canada.

C0-105 (ISBN 0-662-32897-3) Public Health Agency of Canada. (2002). *Teacher's Guide to Physical Activity for Youth 10-14 Years of Age.* Ottawa, ON: Her Majesty the Queen in Right of Canada.

C0-106 (ISBN 0-662-32899-X) Public Health Agency of Canada. (2002). *Let's Get Active! Magazine for Youth 10-14 Years of Age.* Ottawa, ON: Her Majesty the Queen in Right of Canada.

COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 5

EO M204.05 – PERFORM THE PACER

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson. Review PACER information located on Test Admin Manual DVD. The CD/cassette for the PACER can be found in The Cooper Institute, *Fitnessgram 8.0 Stand-Alone Test Kit*, Human Kinetics. Information on the PACER can be found in The Cooper Institute, *Fitnessgram/Activitygram Test Administration Manual*, Human Kinetics, pp. 27 to 29.

Set up the training area for the PACER.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

Practical activity was chosen for this lesson as it is an interactive way to allow the cadets to track their progress in cardiovascular endurance. This activity contributes to the development of cardiovascular endurance in a fun and challenging setting.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall have performed the PACER.

IMPORTANCE

It is important for cadets to increase their physical fitness level, beginning with their cardiovascular fitness. Performing the PACER for the second (third if corps opted to conduct EO C204.01 [Perform the PACER]) time will give each cadet an indication of how their cardiovascular endurance has improved over the course of the

training year. This is also an opportunity for cadets to update their personal activity plan in an effort to achieve personal fitness goals.

Teaching Point 1 **Conduct a Warm-up Session Composed of Light Cardiovascular Exercises**

Time: 5 min Method: Practical Activity

The following information will be explained to the cadets during the warm-up activity.

PURPOSE OF A WARM-UP

A warm-up is composed of stretches and light cardiovascular exercises designed to:

- stretch the muscles;
- gradually increase respiratory action and heart rate;
- expand the muscles' capillaries to accommodate the increase in blood circulation which occurs during physical activity; and
- raise the muscle temperature to facilitate reactions in muscle tissue.

GUIDELINES FOR STRETCHING

The following guidelines should be followed while stretching to prepare for physical activity and to help prevent injury:

- Stretch all major muscle groups, including the back, chest, legs, and shoulders.
- Never bounce while stretching.
- Hold each stretch for 10 to 30 seconds to let the muscles release fully.
- Repeat each stretch two to three times.
- When holding a stretch, support the limb at the joint.
- Static stretching, which is stretching a muscle and holding it in position without discomfort for 10 to 30 seconds, is considered the safest method.
- Stretching helps to relax the muscles and improve flexibility, which is the range of motion in the joints.
- As a guide, allow 10 minutes to warm-up for every hour of physical activity.

The stretches chosen should focus on the areas of the body that will be used the most during the sports activity.

ACTIVITY

OBJECTIVE

The objective of this warm-up activity is to stretch the muscles and perform light cardiovascular exercises to prepare the body for physical activity and to help prevent injuries.

RESOURCES

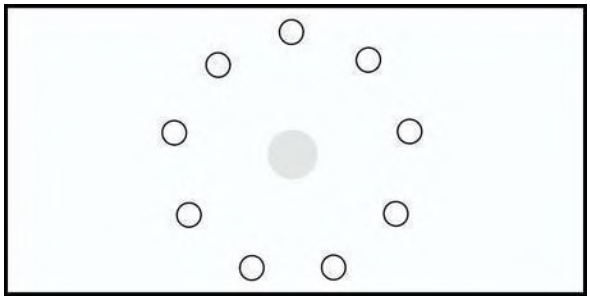
N/A.

ACTIVITY LAYOUT

N/A.

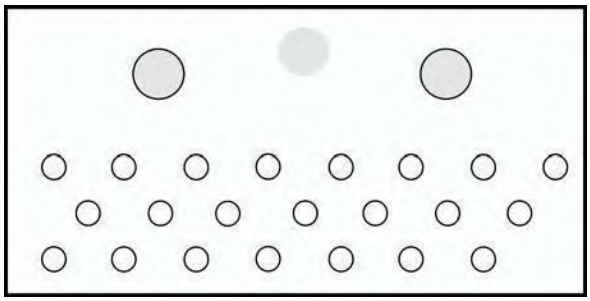
ACTIVITY INSTRUCTIONS

- Arrange the cadets in either a warm-up circle or in rows (as illustrated in Figures 4-5-1 and 4-5-2).



D Cdts 3, 2006, Ottawa, ON: Department of National Defence

Figure 4-5-1 Instructor in the Centre of a Warm-up Circle



D Cdts 3, 2006, Ottawa, ON: Department of National Defence

Figure 4-5-2 Instructor at the Front With Two Assistant Instructors

- Demonstrate before having the cadets attempt each stretch/light cardiovascular exercise.
- Assistant instructors can help demonstrate the exercises and ensure the cadets are performing them correctly.
- Have cadets perform each stretch/light cardiovascular exercise.

Light cardiovascular exercises should be done to warm-up the muscles prior to stretching to avoid injury to or tearing of the muscles. For example, running on the spot for 30 seconds or performing jumping jacks should be performed prior to conducting the stretches located at Annex A.

SAFETY

- Ensure there are at least two arm lengths between the cadets so they can move freely.
- Ensure the cadets perform the stretches and light cardiovascular exercises in a safe manner, following the guidelines for stretching listed in this TP.

CONFIRMATION OF TEACHING POINT 1

The cadets' participation in the warm-up will serve as the confirmation of this TP.

Teaching Point 2 **Supervise While the Cadets Perform the PACER**

Time: 15 min Method: Practical Activity

ACTIVITY

OBJECTIVE

The objective of this activity is for the cadets to perform the PACER.

RESOURCES

- The Cooper Institute, *Fitnessgram 8.0 Stand-Alone Test Kit*, Human Kinetics,
- Pylons (four or more),
- Measuring tape,
- CD/cassette player,
- Photocopies of the *PACER Individual Score Sheet A*,
- Pens/pencils, and
- First aid kit.

ACTIVITY LAYOUT

- Set up the training area with 40 to 60 inch lanes, and
- Mark a 20 m course with pylons at the ends of each lane.

This activity may be conducted outside.

ACTIVITY INSTRUCTIONS

1. Divide cadets into pairs.
2. Distribute photocopies of the *PACER Individual Score Sheet A* and pens/pencils to one cadet from each pair.
3. Have the cadets with the score sheet write their partner's name on the score sheet and sit behind the starting line ready to record results.
4. Have the cadets running the PACER line up in their respective lanes at the starting line and wait for instructions to begin.
5. Play the audio CD/cassette.
6. The PACER is complete when all cadets have not reached the line before the beep for the second time.
7. Once completed, have the cadets who ran the PACER become the scorekeepers and the scorekeepers become the participants.
8. Distribute photocopies of the *PACER Individual Score Sheet A* and pens/pencils to the second cadet from each pair.
9. Have cadets with the score sheet write their partner's name on the score sheet and sit behind the starting line ready to record results.
10. Have cadets running the PACER line up in their respective lanes at the starting line and wait for instructions to begin.
11. Play the audio CD/cassette.
12. The PACER is complete when all cadets have not reached the line before the beep for the second time.

SAFETY

- Ensure a designated first aider and first aid kit are available.
- Ensure water is available for the cadets after they complete the PACER.

CONFIRMATION OF TEACHING POINT 2

The cadets' participation in the PACER will serve as the confirmation of this TP.

Teaching Point 3 **Conduct a Cool-down Session Composed of Light Cardiovascular Exercises**

Time: 5 min Method: Practical Activity

The following information will be explained to the cadets during the cool-down activity.

PURPOSE OF A COOL-DOWN

A cool-down is composed of stretches and light cardiovascular exercises designed to:

- allow the body time to slowly recover from physical activity and to help prevent injury;
- prepare the respiratory system to return to its normal state; and
- stretch the muscles to help relax and restore them to their resting length.

The stretches chosen should focus on the areas of the body that were used the most during the sports activity.

ACTIVITY

OBJECTIVE

The objective of the cool-down is to stretch the muscles and perform light cardiovascular exercises that allow the body time to recover from physical activity, and to prevent injury.

RESOURCES

N/A.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

- Arrange the cadets in either a warm-up circle or in rows (as illustrated in Figures 4-5-1 and 4-5-2).
- Demonstrate before having the cadets attempt each stretch/light cardiovascular exercise.
- Assistant instructors can help demonstrate the movements and ensure the cadets are performing them correctly.
- Have cadets perform each stretch/light cardiovascular exercise.

SAFETY

- Ensure there are at least two arm lengths between the cadets so they can move freely.
- Ensure the cadets perform the stretches and light cardiovascular exercises in a safe manner, following the guidelines for stretching listed in TP1.

CONFIRMATION OF TEACHING POINT 3

The cadets' participation in the cool-down will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in the PACER will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

The results of the PACER are not to be used for evaluation of the cadets. The results are for each cadet to track their own progress in cardiovascular fitness from when they performed the PACER in M204.01 (Perform the PACER) and in C204.01 (Perform the PACER), for those corps that choose to conduct this EO.

CLOSING STATEMENT

Assessing cardiovascular fitness will allow you to identify your present level of fitness and how you can strive to increase it. This is also an opportunity for you to update your personal activity plan in an effort to achieve personal fitness goals.

INSTRUCTOR NOTES/REMARKS

The PACER is an individual assessment of cardiovascular fitness. Results from this assessment are not to be used for competition or classification among cadets.

The results of the second PACER should be compared to the results of the first PACER to determine the cadets' individual progress in cardiovascular endurance.

REFERENCES

C0-002 (ISBN 0-88962-630-8) LeBlanc, J. & Dickson, L. (1997). *Straight Talk about Children and Sport: Advice for Parents, Coaches, and Teachers.* Oakville, ON and Buffalo, NY: Mosaic Press.

C0-057 Martha Jefferson Hospital. (2001). *Warm-Ups.* Retrieved 26 October 2006, from http://www.marthajefferson.org/warmup.php.

C0-058 Webb Physiotherapists Inc. (ND). *Running Exercises.* Retrieved 26 October 2006, from http://www.physionline.co.za/conditions/article.asp?id=46.

C0-059 Webb Physiotherapists Inc. (ND). *Exercise Programme for Squash, Tennis, Softball, Handball.* Retrieved 25 October 2006, from http://www.physionline.co.za/conditions/article.asp?id=49.

C0-060 Impacto Protective Products Inc. (1998). *Exercises.* Retrieved 25 October 2006, from http://www.2protect.com/work3b.htm.

C0-061 City of Saskatoon, Community Services Department. (2006). *Stretch Your Limits: A Smart Guide to Stretching for Fitness.* Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/.

C0-089 (ISBN 0-936070-22-6) Anderson, B. (2000). *Stretching: 20th Anniversary (Rev. ed.).* Bolinas, CA: Shelter Publications, Inc.

C0-095 (ISBN 0-7360-5962-8) The Cooper Institute. (ND). *Fitnessgram/Activitygram Test Administration Kit: Fitnessgram 8.0 Stand-Alone Test Kit.* Windsor, ON: Human Kinetics.

C0-154 Hansen, B. (1999). *Moving on the Spot: Fun and Physical Activity: A Collection of 5 Minute Stretch and Movement Sessions.* Retrieved 26 October 2006, from http://lin.ca/resource/html/dn3.htm#l1.

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COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 6

EO C204.01 – PERFORM THE PACER

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson. Review the information located on Test Admin Manual DVD. The CD/cassette for the PACER can be found in The Cooper Institute, *Fitnessgram 8.0 Stand-Alone Test Kit*, Human Kinetics. Information on the PACER can be found in The Cooper Institute, *Fitnessgram/Activitygram Test Administration Manual*, Human Kinetics, pp. 27 to 29.

Set up the training area for the PACER.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

Practical activity was chosen for this lesson as it is an interactive way to allow the cadets to track their progress in cardiovascular endurance. This activity contributes to the development of cardiovascular endurance in a fun and challenging setting.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall have performed the PACER.

IMPORTANCE

It is important for cadets to increase their physical fitness level, beginning with their cardiovascular fitness. Performing the PACER a second time will give cadets an indication of how their cardiovascular endurance has improved. This is also an opportunity for cadets to update their personal activity plan in an effort to achieve their personal fitness goals.

Teaching Point 1 **Conduct a Warm-up Session Composed of Light Cardiovascular Exercises**

Time: 5 min Method: Practical Activity

The following information will be explained to the cadets during the warm-up activity.

PURPOSE OF A WARM-UP

A warm-up is composed of stretches and light cardiovascular exercises designed to:

- stretch the muscles;
- gradually increase respiratory action and heart rate;
- expand the muscles' capillaries to accommodate the increase in blood circulation which occurs during physical activity; and
- raise the muscle temperature to facilitate reactions in muscle tissue.

GUIDELINES FOR STRETCHING

The following guidelines should be followed while stretching to prepare for physical activity and to help prevent injury:

- Stretch all major muscle groups, including the back, chest, legs, and shoulders.
- Never bounce while stretching.
- Hold each stretch for 10 to 30 seconds to let the muscles release fully.
- Repeat each stretch two to three times.
- When holding a stretch, support the limb at the joint.
- Static stretching, which is stretching a muscle and holding it in position without discomfort for 10 to 30 seconds, is considered the safest method.
- Stretching helps to relax the muscles and improve flexibility, which is the range of motion in the joints.
- As a guide, allow 10 minutes to warm-up for every hour of physical activity.

The stretches chosen should focus on the areas of the body that will be used the most during the sports activity.

ACTIVITY

OBJECTIVE

The objective of this warm-up activity is to stretch the muscles and perform light cardiovascular exercises to prepare the body for physical activity and to help prevent injuries.

RESOURCES

N/A.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

- Arrange the cadets in either a warm-up circle or in rows (as illustrated in Figures 4-6-1 and 4-6-2).

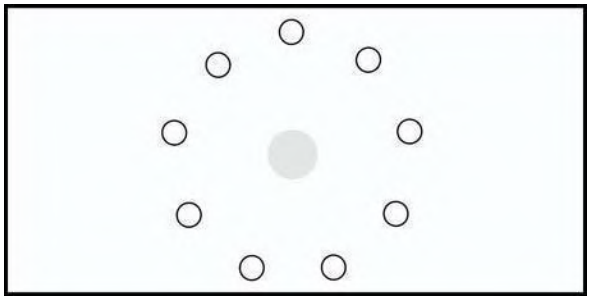

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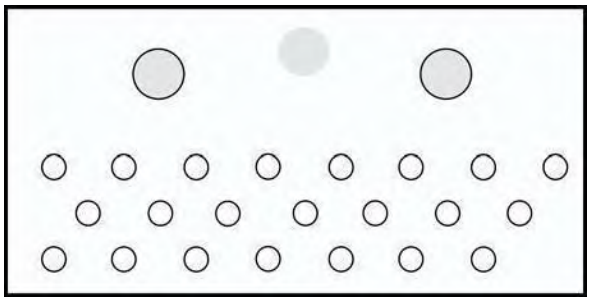
Figure 4-6-1 Instructor in the Centre of a Warm-up Circle



D Cdts 3, 2006, Ottawa, ON: Department of National Defence

Figure 4-6-2 Instructor at the Front With Two Assistant Instructors

- Demonstrate before having the cadets attempt each stretch/light cardiovascular exercise.
- Assistant instructors can help demonstrate the exercises and ensure the cadets are performing them correctly.
- Have cadets perform each stretch/light cardiovascular exercise.

Light cardiovascular exercises should be done to warm-up the muscles prior to stretching to avoid injury to or tearing of the muscles. For example, running on the spot for 30 seconds or performing jumping jacks should be performed prior to conducting the stretches located at Annex A.

SAFETY

- Ensure there are at least two arm lengths between the cadets so they can move freely.
- Ensure the cadets perform the stretches and light cardiovascular exercises in a safe manner, following the guidelines for stretching listed in this TP.

CONFIRMATION OF TEACHING POINT 1

The cadets' participation in the warm-up will serve as the confirmation of this TP.

Teaching Point 2 **Supervise While the Cadets Perform the PACER**

Time: 15 min Method: Practical Activity

ACTIVITY

OBJECTIVE

The objective of this activity is for the cadets to perform the PACER.

RESOURCES

- The Cooper Institute, *Fitnessgram 8.0 Stand-Alone Test Kit*, Human Kinetics,
- Pylons (four or more),
- Measuring tape,
- CD/cassette player,
- Photocopies of the *PACER Individual Score Sheet A*,
- Pens/pencils, and
- First aid kit.

ACTIVITY LAYOUT

- Set up the training area with 40 to 60 inch lanes, and
- Mark a 20 m course with pylons at the ends of each lane.

This activity may be conducted outside.

ACTIVITY INSTRUCTIONS

1. Divide cadets into pairs.
2. Distribute photocopies of the *PACER Individual Score Sheet A* and pens/pencils to one cadet from each pair.
3. Have the cadets with the score sheet write their partner's name on the score sheet and sit behind the starting line ready to record results.
4. Have the cadets running the PACER line up in their respective lanes at the starting line and wait for instructions to begin.
5. Play the audio CD/cassette.
6. The PACER is complete when all cadets have not reached the line before the beep for the second time.
7. Once completed, have the cadets who ran the PACER become the scorekeepers and the scorekeepers become the participants.
8. Distribute photocopies of the *PACER Individual Score Sheet A* and pens/pencils to the second cadet from each pair.
9. Have cadets with the score sheet write their partner's name on the score sheet and sit behind the starting line ready to record results.
10. Have cadets running the PACER line up in their respective lanes at the starting line and wait for instructions to begin.
11. Play the audio CD/cassette.
12. The PACER is complete when all cadets have not reached the line before the beep for the second time.

SAFETY

- Ensure a designated first aider and first aid kit are available.
- Ensure water is available for the cadets after they complete the PACER.

CONFIRMATION OF TEACHING POINT 2

The cadets' participation in the PACER will serve as the confirmation of this TP.

Teaching Point 3 **Conduct a Cool-down Session Composed of Light Cardiovascular Exercises**

Time: 5 min Method: Practical Activity

The following information will be explained to the cadets during the cool-down activity.

PURPOSE OF A COOL-DOWN

A cool-down is composed of stretches and light cardiovascular exercises designed to:

- allow the body time to slowly recover from physical activity and to help prevent injury;
- prepare the respiratory system to return to its normal state; and
- stretch the muscles to help relax and restore them to their resting length.

The stretches chosen should focus on the areas of the body that were used the most during the sports activity.

ACTIVITY

OBJECTIVE

The objective of the cool-down is to stretch the muscles and perform light cardiovascular exercises that allow the body time to recover from physical activity, and to prevent injury.

RESOURCES

N/A.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Arrange the cadets in either a warm-up circle or in rows (as illustrated in Figures 4-6-1 and 4-6-2).
2. Demonstrate before having the cadets attempt each stretch/light cardiovascular exercise.
3. Assistant instructors can help demonstrate the movements and ensure the cadets are performing them correctly.
4. Have cadets perform each stretch/light cardiovascular exercise.

SAFETY

- Ensure there are at least two arm lengths between the cadets so they can move freely.
- Ensure the cadets perform the stretches and light cardiovascular exercises in a manner that is safe, following the guidelines for stretching listed in TP1.

CONFIRMATION OF TEACHING POINT 3

The cadets' participation in the cool-down will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in the PACER will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

The results of the PACER are not to be used for evaluation of the cadets. The results are for each cadet to track their own progress in cardiovascular fitness from when they performed the PACER in M204.01 (Perform the PACER) and when they perform the PACER again in M204.05 (Perform the PACER).

CLOSING STATEMENT

Assessing cardiovascular fitness will allow you to identify your present level of fitness and how you can strive to increase it. This is also an opportunity for you to update your personal activity plan in an effort to achieve your personal fitness goals.

INSTRUCTOR NOTES/REMARKS

The PACER is an individual assessment of cardiovascular fitness. Results from this assessment are not to be used for competition or classification amongst cadets.

This EO gives the cadet the opportunity to run the PACER a third time in the middle of the training year allowing them to better track their progress in cardiovascular endurance.

REFERENCES

C0-002 (ISBN 0-88962-630-8) LeBlanc, J. & Dickson, L. (1997). *Straight Talk About Children and Sport: Advice for Parents, Coaches, and Teachers.* Oakville, ON and Buffalo, NY: Mosaic Press.

C0-057 Martha Jefferson Hospital. (2001). *Warm-ups.* Retrieved 26 October 2006, from http://www.marthajefferson.org/warmup.php.

C0-058 Webb Physiotherapists Inc. (ND). *Running Exercises.* Retrieved 26 October 2006, from http://www.physionline.co.za/conditions/article.asp?id=46.

C0-059 Webb Physiotherapists Inc. (ND). *Exercise Programme for Squash, Tennis, Softball, Handball.* Retrieved 25 October 2006, from http://www.physionline.co.za/conditions/article.asp?id=49.

C0-060 Impacto Protective Products Inc. (1998). *Exercises.* Retrieved 25 October 2006, from http://www.2protect.com/work3b.htm.

C0-061 City of Saskatoon, Community Services Department. (2006). *Stretch Your Limits: A Smart Guide to Stretching for Fitness.* Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/.

C0-089 (ISBN 0-936070-22-6) Anderson, B. (2000). *Stretching: 20th Anniversary (Rev. ed.).* Bolinas, CA: Shelter Publications, Inc.

C0-095 (ISBN 0-7360-5962-8) The Cooper Institute. (ND). *Fitnessgram/Activitygram Test Administration Kit: Fitnessgram 8.0 Stand-Alone Test Kit.* Windsor, ON: Human Kinetics.

C0-154 Hansen, B. (1999). *Moving on the Spot: Fun and Physical Activity: A Collection of 5 Minute Stretch and Movement Sessions.* Retrieved 26 October 2006, from http://lin.ca/resource/html/dn3.htm#l1.

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COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 7

EO C204.02 – DEVELOP A PERSONAL NUTRITION PLAN

Total Time: 60 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Ensure there are sufficient copies of Health Canada, *Canada's Food Guide*, Her Majesty the Queen in Right of Canada, for each cadet.

Photocopy handouts located at Annexes E and F for each cadet.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An in-class activity was chosen for TP1 and TP3 as it is an interactive way to provoke thought and stimulate an interest in healthy eating among cadets.

A group discussion was chosen for TP2 as it allows the cadets to interact with their peers and share their knowledge, experiences, opinions, and feelings about healthy eating.

INTRODUCTION

REVIEW

Review EO M204.02 (Identify Healthy Food Choices), to include:

- food groups,
- food guide servings, and
- recommended daily intake.

OBJECTIVES

By the end of this lesson the cadet shall be expected to develop a personal nutrition plan.

IMPORTANCE

It is important for cadets to develop a personal nutrition plan as it is a good method of applying knowledge of healthy food choices. Choosing healthy foods may help the body to grow strong and help to prevent illnesses.

Teaching Point 1 — **Have the Cadets Complete a Food Journal of What They Ate That Day**

Time: 10 min — Method: In-class Activity

ACTIVITY

OBJECTIVE

The objective of this activity is to complete a food journal.

RESOURCES

- Food journal handout located at Annex E, and
- Pens/pencils.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Distribute handout (located at Annex E) to each cadet.
2. Allow 10 minutes for the cadets to complete the food journal, listing what they ate that day and calculating the number of servings from each food group at the bottom of the table.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 1

The cadets' participation in the activity will serve as the confirmation of this TP.

Teaching Point 2 — **Discuss How the Cadets' Food Choices Compare With *Canada's Food Guide***

Time: 10 min — Method: Group Discussion

The point of the group discussion is to draw the following information from the group using the tips for answering/facilitating discussion and the suggested questions provided.

BACKGROUND KNOWLEDGE

Background information for this discussion is found in Health Canada, *Canada's Food Guide*, Her Majesty the Queen in Right of Canada.

GROUP DISCUSSION

TIPS FOR ANSWERING/FACILITATING DISCUSSION

- Establish ground rules for discussion, e.g. everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Manage time by ensuring the cadets stay on topic.
- Listen and respond in a way that indicates you have heard and understood the cadet. This can be done by paraphrasing their ideas.
- Give the cadets time to respond to your questions.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer. Cadets must also have the option to pass if they wish.
- Additional questions should be prepared ahead of time.

SUGGESTED QUESTIONS

Q1. What types of healthy foods did you eat today?

Q2. From which food group did you eat the most?

Q3. From which food group should you have eaten more?

Q4. What unhealthy foods did you eat today?

Other questions and answers will develop throughout the group discussion. The group discussion should not be limited to only those suggested.

Reinforce those answers given and comments made during the group discussion, ensuring the teaching point has been covered.

CONFIRMATION OF TEACHING POINT 2

The cadets' participation in the group discussion will serve as confirmation of this TP.

Teaching Point 3 **Have the Cadets Develop a Personal Nutrition Plan for One Week**

Time: 30 min Method: In-class Activity

ACTIVITY

OBJECTIVE

The objective of this activity is to develop a personal nutrition plan for one week.

RESOURCES

- Health Canada, *Canada's Food Guide*, Her Majesty the Queen in Right of Canada,
- Personal nutrition plan handout located at Annex F, and
- Pens/pencils.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Distribute handout (located at Annex F) to each cadet.
2. Allow 30 minutes for the cadets to complete the personal nutrition plan, outlining what they would eat for one week. Encourage the cadets to make healthy food choices and to strive to meet the recommended daily intake outlined in Health Canada, *Canada's Food Guide*, Her Majesty the Queen in Right of Canada, (e.g. six servings of vegetables and fruit in one day).

Ensure cadets use Health Canada, *Canada's Food Guide*, Her Majesty the Queen in Right of Canada, when completing their nutrition plan.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 3

The cadets' participation in the activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' development of a personal nutrition plan will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Choosing healthy foods may help the body to grow strong and help to prevent illnesses. Meal planning meals ensures that healthier foods are chosen instead of convenient, unhealthy options. Eating healthy foods is important to choosing a healthy lifestyle.

INSTRUCTOR NOTES/REMARKS

The personal nutrition plan is not to be used as a measurement tool. It should be developed solely for the cadets' use to understand healthy food choices.

REFERENCES

C0-100 (ISBN 0-662-44467-1) Health Canada. (2007). *Canada's Food Guide.* Ottawa, ON: Her Majesty the Queen in Right of Canada.

C0-101 (ISBN 0-662-44470-1) Health Canada. (2007). *Eating Well With Canada's Food Guide: A Resource for Educators and Communicators.* Ottawa, ON: Her Majesty the Queen in Right of Canada.

C0-107 Health Canada. (2007). *Canada's Food Guide: My Food Guide.* Retrieved 20 February 2007, from http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/myguide-monguide/index_e.html.

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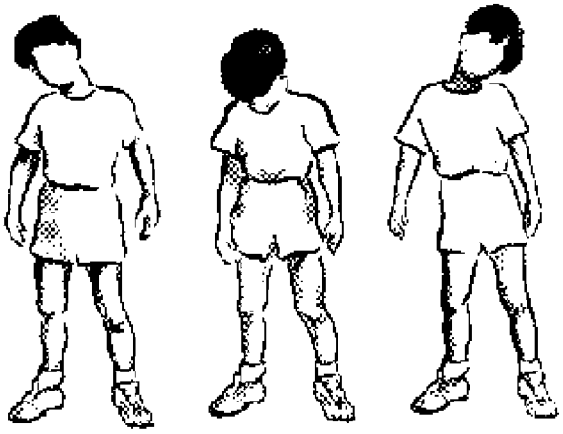
SAMPLE STRETCHES

NECK



Moving on the Spot: A Collection of 5-Minute Stretch and Movement Sessions, by B. Hanson, 1999, Toronto, Ontario: Toronto Public Health. Retrieved 26 October 2006, from http://www.lin.ca/resource/html/dn3.htm#I1

Figure 4A-1 Neck Stretch

Slowly roll your head across your chest from shoulder to shoulder. Do not roll your head backwards.

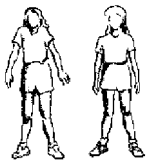
SHOULDERS

Moving on the Spot: A Collection of 5-Minute Stretch and Movement Sessions, by B. Hanson, 1999, Toronto, Ontario: Toronto Public Health. Retrieved 26 October 2006, from http://www.lin.ca/resource/html/dn3.htm#I1

Figure 4A-2 Shoulder Push

Stand and extend your arms behind you, interlocking your fingers. Push up and back with your shoulders.

Hold this position for a minimum of 10 seconds.



Moving on the Spot: A Collection of 5-Minute Stretch and Movement Sessions, by B. Hanson, 1999, Toronto, Ontario: Toronto Public Health. Retrieved 26 October 2006, from http://www.lin.ca/resource/html/dn3.htm#I1

Figure 4A-3 Shoulder Shrug

Stand and raise your shoulders as high as possible and then lower your shoulders, stretching your neck up.

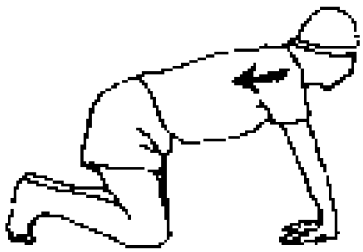
Pull your shoulders back as far as possible and then round your shoulders forward by pushing your shoulders forward as far as possible.

Hold each position for a minimum of 10 seconds.

 Warm Ups, by Martha Jefferson Hospital, Copyright 2001 by Martha Jefferson Hospital. Retrieved 26 October 2006, from http://www.marthajefferson.org/warmup.php Figure 4A-4 Arm Circles	Hold your arms straight out, palms up. Make small circles with your arms, gradually increasing the size. Reverse the direction of your circles.
 Smart Start: A Flexible Way to Get Fit. Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/ Figure 4A-5 Shoulder Stretch	Either standing or sitting, take your right arm in your left hand and bring it across your chest, supporting the joint by holding it behind the elbow. Pull the elbow lightly towards your chest. You should feel the stretch in your right shoulder. Hold this position for a minimum of 10 seconds and repeat on the opposite side.

ARMS

 Exercises. Copyright 1998 by Impacto Protective Products Inc. Retrieved 26 October 2006, from http://www.2protect.com/home.htm Figure 4A-6 Wrist Rotations	Rotate your hands in circular motions at the wrist. Change direction and repeat on both sides.
 Smart Start: A Flexible Way to Get Fit. Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/ Figure 4A-7 Triceps Stretch	Stand and bring your right arm over your head, bent at the elbow. Use your left hand to gently pull your arm down. Hold this position for a minimum of 10 seconds and repeat on the opposite side.

 *Exercise Programme for Squash, Tennis, Softball, Handball. Retrieved 26 October 2006, from http:// www.physionline.co.za/conditions/article.asp?id=49* Figure 4A-8 Forearm Stretch	In a kneeling position, place your hands on the floor in front of you with your fingers pointing toward your knees, and your thumbs pointing out. Keeping your hands flat on the floor, lean back. Hold this position for a minimum of 10 seconds.

CHEST AND ABDOMINALS

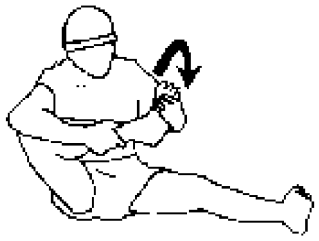
 Smart Start: A Flexible Way to Get Fit. Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/ Figure 4A-9 Chest Stretch	Stand facing a wall. With your right arm bent and your elbow at shoulder height, place your palm against the wall. Turn your body away from your right arm. You should feel the stretch on the front side of your armpit and across the front of you chest. Hold this position for a minimum of 10 seconds and repeat on the opposite side.
 Moving on the Spot: A Collection of 5-Minute Stretch and Movement Sessions, by B. Hanson, 1999, Toronto, Ontario: Toronto Public Health. Retrieved 26 October 2006, from http://www.lin.ca/resource/html/dn3.htm#I1 Figure 4A-10 Side Stretch	Stand with your left arm up over your head. Bend at the waist towards the right side of your body. Hold this position for a minimum of 10 seconds and repeat on the opposite side.

BACK

 Smart Start: A Flexible Way to Get Fit. Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/ Figure 4A-11 Lower Back Stretch	Lie on your back and bring your knees toward your chest. Grasp the back of your knees. Hold this position for a minimum of 10 seconds.
 Smart Start: A Flexible Way to Get Fit. Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/ Figure 4A-12 Upper Back Stretch	Extend your arms straight in front of you at shoulder height crossing one arm over the other. With the palms facing each other, intertwine your fingers and press out through your arms. Let your chin fall to your chest as you exhale. You should feel the stretch in the upper back. Hold this position for a minimum of 10 seconds and repeat on the opposite side.

LEGS

 Smart Start: A Flexible Way to Get Fit. Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/ Figure 4A-13 Hamstring Stretch	Lie flat on the floor with your knees bent and your back flat on the floor. Slowly raise and straighten one leg, grasping it behind your thigh with both hands. Hold this position for a minimum of 10 seconds.

 Smart Start: A Flexible Way to Get Fit. Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/ Figure 4A-14 Inner Thigh Stretch	Sit on the floor with your knees bent and the soles of your feet together. Grab your toes and pull yourself forward while keeping your back and neck straight. Hold this position for a minimum of 10 seconds. Grab your ankles and push your knees down toward the floor with your elbows. Hold this position for a minimum of 10 seconds.
 Smart Start: A Flexible Way to Get Fit. Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/ Figure 4A-15 Hip Flexor	Kneel on your right knee. Position your left foot in front of you, bending your knee and placing your left hand on that leg for stability. Keep your back straight and abdominal muscles tight. Lean forward, shifting more body weight onto your front leg. You should feel the stretch in the front of your hip and the thigh of the leg you are kneeling on. Cushion your kneecap with a folded towel if necessary. Hold this position for a minimum of 10 seconds and repeat on the opposite side.
 *Running Exercises. Retrieved 26 October 2006, http:// www.physionline.co.za/conditions/article.asp?id=46* Figure 4A-16 Ankle Rotations	From a sitting position, rotate your foot in a clockwise, and then a counterclockwise, direction. Switch and repeat on the opposite side.

 Smart Start: A Flexible Way to Get Fit. Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/ Figure 4A-17 Calf Stretch	Stand three steps away from and facing a wall. Step in towards the wall with your right leg, bending your right knee and keeping your left leg straight. Extending your arms with your palms forward, reach out to the wall and let your body fall toward the wall. Keep your toes forward and your heels down. Lean your body into the wall with your left leg straight behind your body. You should feel the stretch in your left calf. Hold this position for a minimum of 10 seconds and repeat on the opposite side.
 Smart Start: A Flexible Way to Get Fit. Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/ Figure 4A-18 Quadriceps Stretch	Stand with your hand against a wall for balance. Lift your left foot off the ground, bending your knee as if you are trying to kick your bottom with your heel. Do not lean forward at the hips. Grab and hold your ankle with your left hand. You should feel the stretch in your left thigh. Hold this position for a minimum of 10 seconds and repeat on the opposite side.

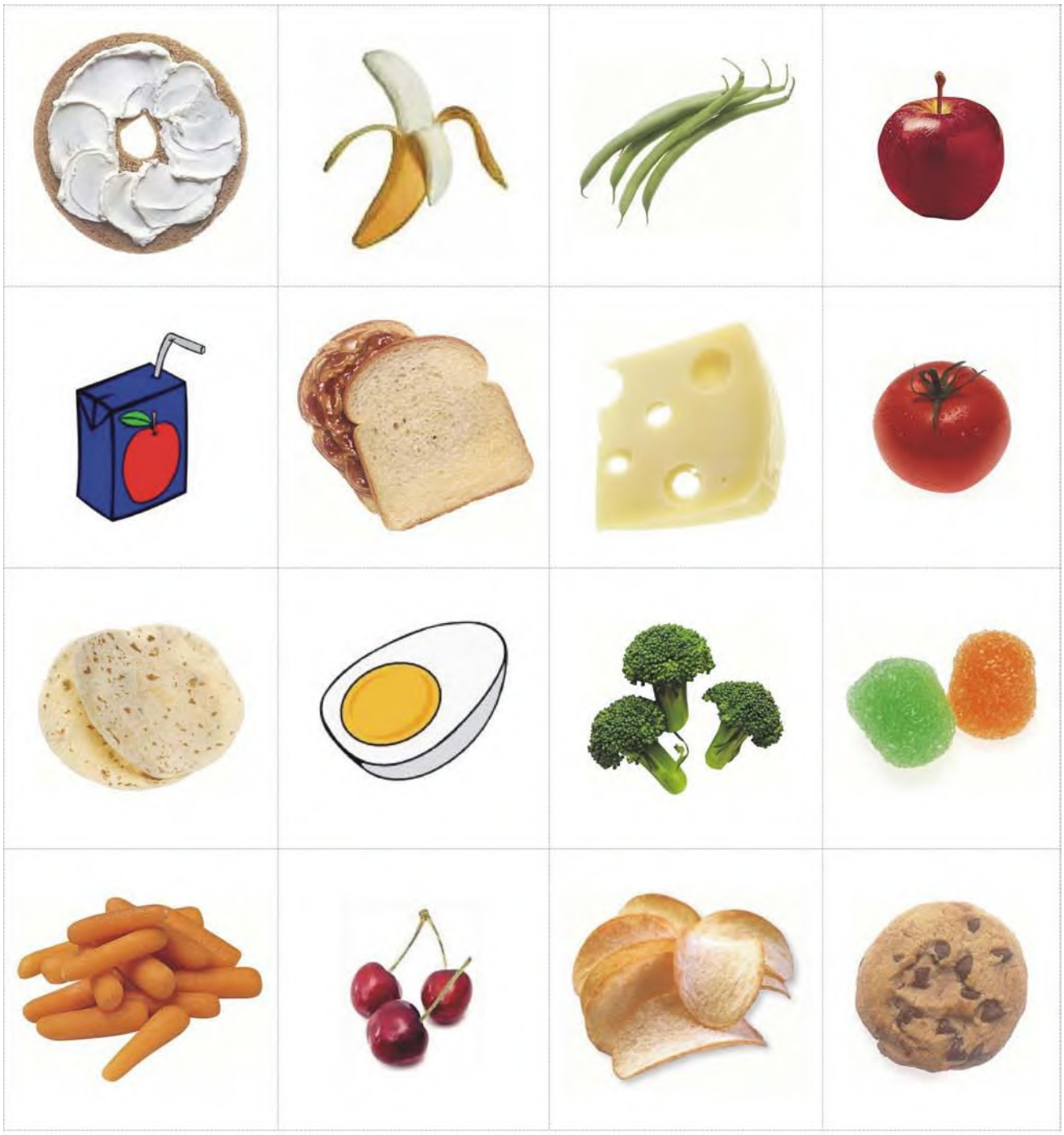
PACK A LUNCH

Name: _____ Date: _____

Chose the food items from the following page that you would pack in your lunch and put them into the lunch bag.

"Food Section". WP Clipart. Retrieved 29 March 2007, from http://www.wpclipart.com/food/index.html

Figure 4B-1 Lunch Bag



From "Food Section". WP Clipart. Retrieved 29 March 2007, from http://www.wpclipart.com/food/index.html

Figure 4B-2 Food Table 1

From "Food Section". WP Clipart. Retrieved 29 March 2007, from http://www.wpclipart.com/food/index.html

Figure 4B-3 Food Table 2

For each food item in your lunch bag, identify the food group(s) to which it belongs and how many servings it would be, and enter it into the following table. Total the number of servings at the bottom of the table.

Food Item	Number of Servings				
	Vegetables/ Fruit	Grain Products	Milk and Alternatives	Meat and Alternatives	Other
TOTAL					

WAYS I CAN ACHIEVE A HEALTHY LIFESTYLE

1. List three ways you can make healthy nutritional food choices more enjoyable.

1.	
2.	
3.	

2. List three types of physical activities in which you enjoy participating.

1.	
2.	
3.	

3. List three reasons why you should not start smoking.

1.	
2.	
3.	

4. List three things you like about yourself.

1.	
2.	
3.	

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MY PERSONAL ACTIVITY PLAN FOR THE RED STAR PROGRAM

Name: _____ **Date:** _____

Developing My Goals

Specific: Ensure the aim of the goal is clearly set out and defined.
Measurable: Ensure the goal has defined standards to work toward that are measurable.
Achievable: Ensure the goal is realistic and can be met.
Relevant: Ensure the goal is worthwhile.
Timed: Ensure there is a set time frame in which to achieve the goal.

My Long-term Goal: _____

Deadline to Achieve by: _____

Steps to Achieve My Goal (Short-term Goals)	Deadline to Achieve by	Date Achieved

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FOOD JOURNAL

Name: _____ Date: _____

Food Item	Number of Servings				
	Vegetables/ Fruit	Grain Products	Milk and Alternatives	Meat and Alternatives	Other
TOTAL					

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PERSONAL NUTRITION PLAN

Name: _____ For The Week: _____

Day	Breakfast	Snack	Lunch	Snack	Supper	Snack
Monday						
Tuesday						
Wednesday						
Thursday						
Friday						
Saturday						
Sunday						

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CHAPTER 5
PO 205 – PARTICIPATE IN RECREATIONAL SPORTS

COMMON TRAINING

INSTRUCTIONAL GUIDE

EO M205.01 – PARTICIPATE IN ORGANIZED RECREATIONAL TEAM SPORTS

Total Time: 3 x 90 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Determine the sport to be played and the best environment in which to play. Consider the age, skill level, and physical condition of the participants as these factors will play a role in preventing injuries.

Ensure a first aid station is set up and sports equipment is available.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TP1 to illustrate the application of rules, principles, or concepts of the specific sport to be played.

A practical activity was chosen for TP2 to TP4 as it allows cadets to participate in sports activities in a safe and controlled environment. This activity contributes to the development of sports skills in a fun and challenging setting.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall have participated in an organized recreational team sport.

IMPORTANCE

It is important for cadets to participate in organized recreational team sports because it is an activity that promotes a healthy lifestyle, while meeting one of the aims of the Cadet Program.

Teaching Point 1 **Introduce Cadets to a Specific Sport's Rules and Regulations**

Time: 10 min Method: Interactive Lecture

HOW TO PLAY THE SPORT

The CCO's list of approved sports is located at Annex A. Once the specific sport is chosen, refer to Annex B for an overview of how to play.

RULES AND REGULATIONS

Refer to Annex B for an overview of the chosen sport's rules and regulations.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. How many members are there on a team?

Q2. What are the rules to be followed while playing?

Q3. How do you score points?

ANTICIPATED ANSWERS

A1. Answer will depend on the sport chosen and can be found at Annex B.

A2. Answer will depend on the sport chosen and can be found at Annex B.

A3. Answer will depend on the sport chosen and can be found at Annex B.

Teaching Point 2 **Conduct a Warm-up Session Composed of Light Cardiovascular Exercises**

Time: 10 min Method: Practical Activity

The following information will be explained to the cadets during the warm-up activity.

PURPOSE OF A WARM-UP

A warm-up is composed of stretches and light cardiovascular exercises designed to:

- stretch the muscles;
- gradually increase respiratory action and heart rate;
- expand the muscles' capillaries to accommodate the increase in blood circulation which occurs during physical activity; and
- raise the muscle temperature to facilitate reactions in muscle tissue.

GUIDELINES FOR STRETCHING

The following guidelines should be followed while stretching to prepare for physical activity and to help prevent injury:

- Stretch all major muscle groups, including the back, chest, legs, and shoulders.
- Never bounce while stretching.
- Hold each stretch for 10 to 30 seconds to let the muscles release fully.
- Repeat each stretch two to three times.
- When holding a stretch, support the limb at the joint.
- Static stretching, which is stretching a muscle and holding it in position without discomfort for 10 to 30 seconds, is considered the safest method.
- Stretching helps to relax the muscles and improve flexibility, which is the range of motion in the joints.
- As a guide, allow 10 minutes to warm-up for every hour of physical activity.

The stretches chosen should focus on the areas of the body that will be used the most during the sports activity.

ACTIVITY

OBJECTIVE

The objective of this warm-up activity is to stretch the muscles and perform light cardiovascular exercises to prepare the body for physical activity and to help prevent injuries.

RESOURCES

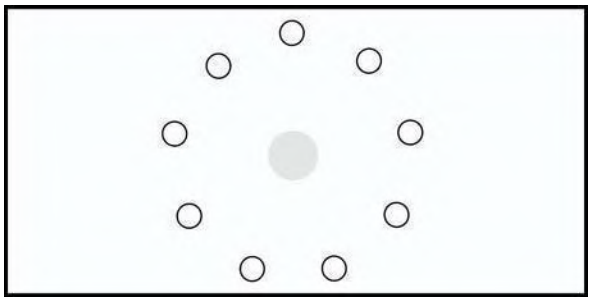
N/A.

ACTIVITY LAYOUT

N/A.

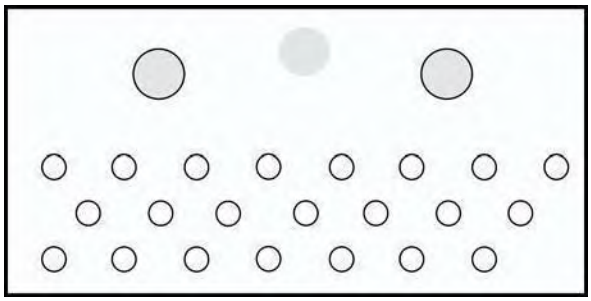
ACTIVITY INSTRUCTIONS

- Arrange the cadets in either a warm-up circle or in rows (as illustrated in Figures 5-1 and 5-2).



D Cdts 3, 2006, Ottawa, ON: Department of National Defence

Figure 5-1 Instructor in the Centre of a Warm-up Circle



D Cdts 3, 2006, Ottawa, ON: Department of National Defence

Figure 5-2 Instructor at the Front With Two Assistant Instructors

- Demonstrate before having the cadets attempt each stretch/light cardiovascular exercise.
- Assistant instructors can help demonstrate the exercises and ensure the cadets are performing them correctly.
- Have cadets perform each stretch/light cardiovascular exercise.

Light cardiovascular exercises should be done to warm-up the muscles prior to stretching to avoid injury to or tearing of the muscles. For example, running on the spot for 30 seconds or performing jumping jacks should be performed prior to conducting the stretches located at Annex C.

SAFETY

- Ensure there are at least two arm lengths between the cadets so they can move freely.
- Ensure the cadets perform the stretches and light cardiovascular exercises in a safe manner, following the guidelines for stretching listed in this TP.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. What is the purpose of performing a warm-up before participating in physical activities?

Q2. How long should each stretch be held?

Q3. Why is it important to stretch?

ANTICIPATED ANSWERS

A1. To gradually increase respiratory action and heart rate and to raise the muscle temperature to facilitate reactions in muscle tissue.

A2. Approximately 10 to 30 seconds.

A3. It helps relax the muscles and increase flexibility.

Teaching Point 3 — **Supervise the Cadets' Participation in a Given Sports Activity**

Time: 50 min — Method: Practical Activity

ACTIVITY

OBJECTIVE

The objective of this activity is to provide cadets with the opportunity to participate in an organized recreational team sport.

RESOURCES

- Sports/safety equipment required for the chosen sport,
- Whistle,
- Stopwatch, and
- First aid equipment.

ACTIVITY LAYOUT

- Set up the sporting venue prior to the commencement of the sport.
- Ensure a whistle, or other sound device, is available to stop play when necessary.

ACTIVITY INSTRUCTIONS

- Divide cadets into teams.
- Supervise the cadets' participation in the sport.
- The rules and regulations for the sport chosen are located at Annex B.

SAFETY

- Ensure cadets are aware of the rules and regulations.
- Ensure constant supervision throughout the activity.
- Ensure a first aid station/kit is readily accessible.
- Ensure a first aider is identified at the start of the activity and is available at all times.

CONFIRMATION OF TEACHING POINT 3

The cadets' participation in the sports activity will serve as the confirmation of this TP.

Teaching Point 4 **Conduct a Cool-down Session Composed of Light Cardiovascular Exercises**

Time: 10 min Method: Practical Activity

The following information will be explained to the cadets during the cool-down activity.

PURPOSE OF A COOL-DOWN

A cool-down is composed of stretches and light cardiovascular exercises designed to:

- allow the body time to slowly recover from physical activity and to help prevent injury;
- prepare the respiratory system to return to its normal state; and
- stretch the muscles to help relax and restore them to their resting length.

The stretches chosen should focus on the areas of the body that were used the most during the sports activity.

ACTIVITY

OBJECTIVE

The objective of the cool-down is to stretch the muscles and perform light cardiovascular exercises that allow the body time to recover from physical activity, and to prevent injury.

RESOURCES

N/A.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

- Arrange the cadets in either a warm-up circle or in rows (as illustrated in Figures 5-1 and 5-2).
- Demonstrate before having the cadets attempt each stretch/light cardiovascular exercise.
- Assistant instructors can help demonstrate the movements and ensure the cadets are performing them correctly.
- Have cadets perform each stretch/light cardiovascular exercise.

SAFETY

- Ensure there are at least two arm lengths between the cadets so they can move freely.

- Ensure the cadets perform the stretches and light cardiovascular exercises in a safe manner, following the guidelines for stretching listed in TP2.

CONFIRMATION OF TEACHING POINT 4

QUESTIONS

Q1. What is the purpose of a cool-down?

Q2. How many times should each stretch be repeated?

Q3. How much cool-down time should you allow for each hour of training?

ANTICIPATED ANSWERS

A1. A cool-down is composed of stretches and light cardiovascular exercises designed to:

- allow the body time to slowly recover from physical activity and to help prevent injury;
- prepare the respiratory system to return to its normal state; and
- stretch the muscles to help relax and restore them to their resting length.

A2. Two to three times.

A3. Ten minutes.

END OF LESSON CONFIRMATION

The cadets' participation in recreational team sports will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Recreational team sports are fun activities that promote physical fitness, which is one of the aims of the Cadet Program.

INSTRUCTOR NOTES/REMARKS

Recreational sports can be carried out as nine periods during a supported day or over three sessions of three periods each.

REFERENCES

C0-001 (ISBN 0-88011-807-5) Hanlon, T. (1998). *The Sports Rules Book: Essential Rules for 54 Sports.* USA: Human Kinetics Publishers, Inc.

C0-002 (ISBN 0-88962-630-8) LeBlanc, J. & Dickson, L. (1997). *Straight Talk About Children and Sport: Advice for Parents, Coaches, and Teachers.* Oakville, ON and Buffalo, NY: Mosaic Press.

C0-030 Ringette Canada. (2006). *How Ringette Is Played.* Retrieved 30 October 2006, from http://www.ringette.ca/e/about/played.htm.

C0-031 What Is Ultimate Frisbee? (2006). *What Is Ultimate – The Game.* Retrieved 30 October 2006, from http://www.whatisultimate.com/what/what_game_en.html.

C0-034 About Ultimate. (2006). *About Ultimate.* Retrieved 30 October 2006, from http://www.upa.org/ultimate.

C0-057 Martha Jefferson Hospital. (2001). *Warm-ups.* Retrieved 26 October 2006, from http://www.marthajefferson.org/warmup.php.

C0-058 Webb Physiotherapists Inc. *Running Exercises.* Retrieved 26 October 2006, from http://www.physionline.co.za/conditions/article.asp?id=46.

C0-059 Webb Physiotherapists Inc. *Exercise Programme for Squash, Tennis, Softball, Handball.* Retrieved 25 October 2006, from http://www.physionline.co.za/conditions/article.asp?id=49.

C0-060 Impacto Protective Products Inc. (1998). *Exercises.* Retrieved 25 October 2006, from http://www.2protect.com/work3b.htm.

C0-061 City of Saskatoon, Community Services Department. (2006). *Stretch Your Limits: A Smart Guide to Stretching for Fitness.* Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/.

C0-074 Norris, G. (Ed.). (1998). *National Football Federation: Touch Football Rule Book 2004.* Ottawa, ON: National Football Federation.

C0-089 (ISBN 0-936070-22-6) Anderson, B. (2000). *Stretching: 20th Anniversary (Rev. ed.).* Bolinas, CA: Shelter Publications, Inc.

C0-154 Hansen, B. (1999). *Moving on the Spot: Fun and Physical Activity: A Collection of 5 Minute Stretch and Movement Sessions.* Retrieved 26 October 2006, from http://lin.ca/resource/html/dn3.htm#l1.

CANADIAN CADET ORGANIZATION LIST OF APPROVED SPORTS

- Baseball,
- Basketball,
- Floor Hockey,
- Football (Flag/Touch),
- Lacrosse,
- Orienteering,
- Ringette,
- Soccer,
- Soccer Baseball,
- Softball,
- Ultimate Frisbee, and
- Volleyball.

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RECREATIONAL SPORTS OVERVIEW

BASEBALL

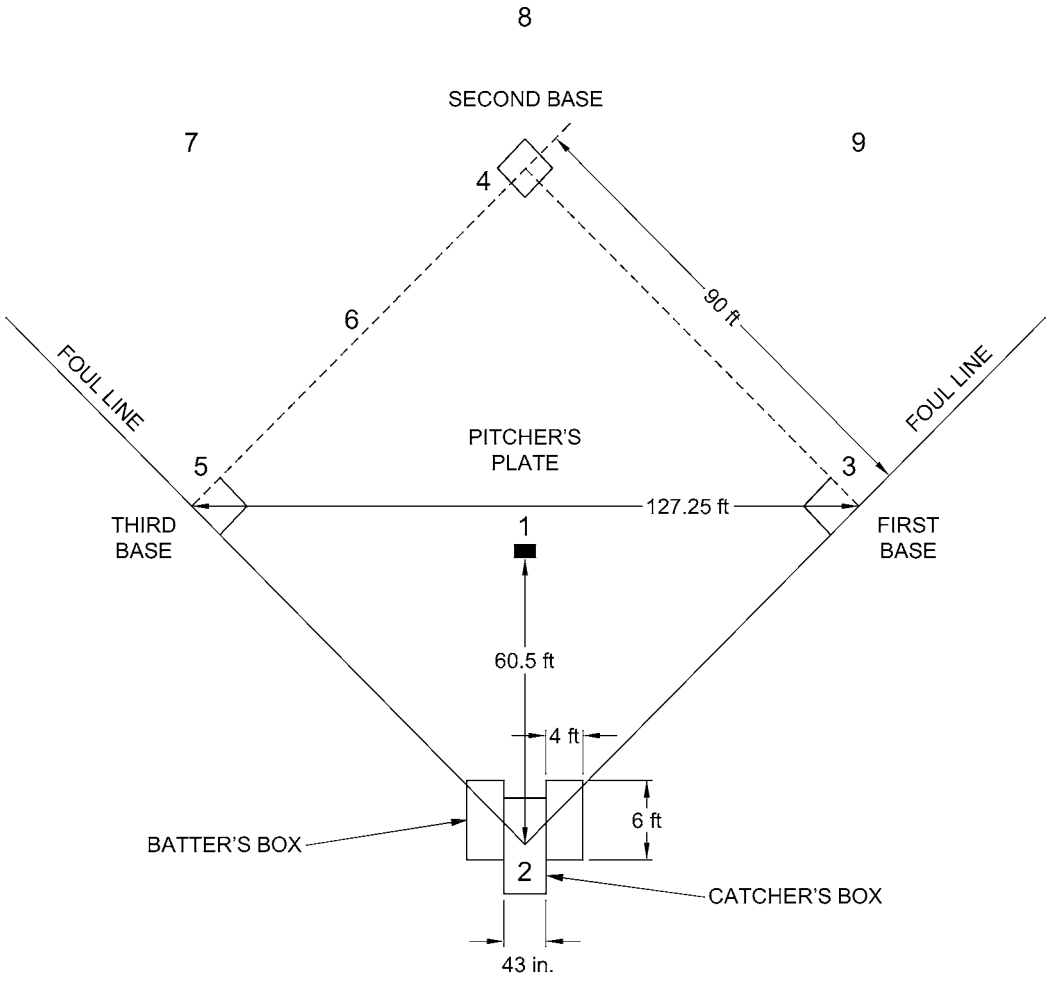
Objective: While trying to prevent the opposing team from scoring runs, each team tries to score as many runs as possible. A run is scored when a team's player runs (in a counterclockwise direction) and steps on all three bases and the home plate. A game lasts nine innings where the team with the highest score wins, unless there is a tie. In the case of a tie, the game will continue for additional innings until a team, scoring an additional run, breaks the tie.

Scoring: One point is awarded as a member completes a circuit around the bases.

Definitions:

Ball	A pitch that is outside the strike zone.
Bunt	When a batter hits the ball by letting the ball meet the bat to drop as a soft ground ball on the infield.
Double Play	When two outs are made on the same play.
Fair Ball	The ball when it is legally in play.
Fly Ball	A ball batted high into the air.
Fly-out	A fly ball that is caught before it touches the ground or the fence.
Force Play	When a runner is forced to move to the next base because the batter becomes a runner.
Foul Ball	A ball that is hit into foul territory (see Figure 5B-1).
Foul Territory	The area outside the foul lines (see Figure 5B-1).
Home Run	When a batter hits a fair ball over the fence, or circles all bases on a hit inside the fence without getting an out on their way around.
Inning	Consists of a top and a bottom. During either the top or bottom half each team will get the opportunity to bat and field accordingly.
Out	An out can be given due to strikeout, force-out, tag-out, and fly-out.
	Strikeout — When a batter has three strikes.
	Force-out — When a fielder touches second base with the ball in their possession before the runner reaches second.
	Tag-out — When a fielder tags a runner with the ball when they are not on a base.
	Fly-out — When a fly ball is caught before it touches the ground or fence.
Strike	A pitch, in the strike zone, at which the batter does not swing, at which the batter swings and misses, or that the batter hits into foul territory during their first two hits. A foul ball on the third is not considered a strike.
Strike Zone	The area over the home plate, between the batter's knees and the midpoint between the top of their shoulders and the top of their pants.

BASEBALL	
Walk	A batter is awarded first base if four “balls” are pitched to the batter during one time up to bat.
Number of Players: Nine players per team.	
Equipment Required:	
• Bases (four), • Bats (two), • Batter’s helmets (two), • Baseball (extras should be on hand), • Various gloves, and • Baseball/Softball field.	
Basic Rules:	
• The game consists of nine innings, with three outs per inning (for each team). Innings may be reduced due to time constraints. • One team takes the field first, taking up the various positions, to include: pitcher, catcher, first baseman, second baseman, third baseman, shortstop, left fielder, centre fielder, and right fielder (see Figure 5B-1). • The other team bats first in the top half of the inning, according to the batting order for their players. • The pitcher attempts to get the batter out, preventing him or her from reaching first base and the subsequent bases. • A batter is out if they receive a strikeout, force-out, tag-out, or fly-out. • The batter’s objective is to get around the bases before the ball reaches the base. The batter has to attempt to get to first base before the ball reaches the base. While the ball is in play the batter can attempt to reach subsequent bases. Once their play is over the next batter is up. • A team scores a run when a player has safely touched all three bases and has made it back to home base, or hits the ball over the fence resulting in a home run.	
Further details on the sport of baseball can be found in Hanlon, Thomas, *The Sports Rules Book: Essential Rules for 54 Sports*, Human Kinetics Publishers, Inc., pp. 25 to 35.	



LEGEND

1. Pitcher
2. Catcher
3. First Baseman
4. Second Baseman
5. Third Baseman
6. Shortstop
7. Left Fielder
8. Centre Fielder
9. Right Fielder

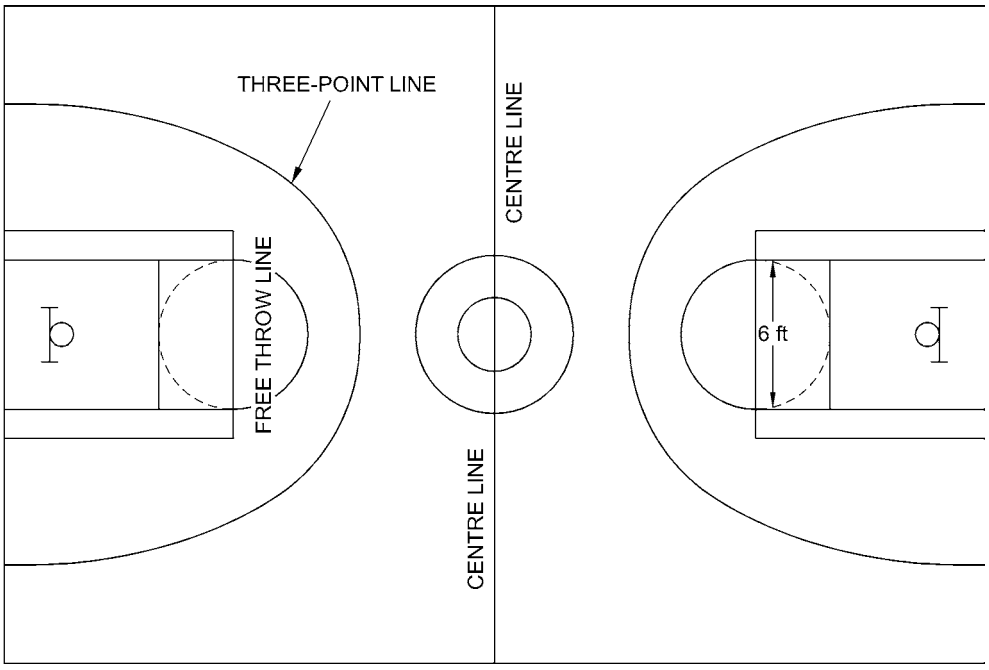
Hanlon, Thomas, The Sports Rules Book: Essential Rules for 54 Sports, Human Kinetics Publishers, Inc., p. 31

Figure 5B-1 Baseball Diamond

BASKETBALL	
Objective: Teams attempt to score as many points as possible by passing the basketball through the opposing teams' basket. The team with the highest score at the end of the game is the winner.	
Scoring:	
Field Goal	A basket worth two points if scored inside the three-point line and three points if scored from outside the line (see Figure 5B-2).
Free Throw	A basket worth one point.
Definitions:	
Dribble	Dribbling consists of bouncing the ball on the floor, using only one hand at a time. This can be done while moving on the court or while the player is stationary. Once a player stops dribbling and holds the ball, they cannot dribble again until another player touches the ball.
Double Dribble	Dribbling with both hands at once is a violation that results in a turnover.
Field Goal	A two or three-point basket.
Foul	A foul is awarded to a player or coach for misconduct and includes the following: • Away from the ball: Committed by a player in a play not involving the player with the ball. • Blocking and charging: Blocking is illegal contact by a defender, impeding the progress of an offensive player. Charging is illegal contact by an offensive player, pushing or moving into the defender's torso. • Delay of game: When a player prevents the ball from being promptly put into play. • Double personal: Occurs when two opposing players commit personal fouls at the same time. • Double technical: When two opposing players commit technical fouls at the same time. • Elbow: When a player elbows a member of the opposing team. • Excessive timeout: When a team calls a timeout when they have no timeouts left, they are granted a technical foul, but the timeout is allowed. • Face guarding: When a defender places a hand in the face or eyes of an opponent they are guarding from the rear, if the opponent does not have the ball. • Fighting and flagrant fouls. • Hand checking: When a defender uses their hands to check the progress of offensive players when those players are in front of them. • Hanging on the rim: When a player hangs off the rim of the basket, unless it is to protect themselves or another player. • Offensive: If a defender has established legal position in a dribbler's path, the dribbler cannot make contact with the opponent. • Personal: A wide variety of contact fouls including holding, pushing, charging, tripping, and illegally interfering with a player's progress.

BASKETBALL	
	• Player-control: Charging, which is when the dribbler commits an offensive by charging into a defender who has established legal position. • Technical: Can be on a player, coach, etc. and does not involve contact with the opponent while the ball is alive. Some include profanity, delay of game, excessive time outs, unsportsmanlike conduct, and hanging on the rim. • Unsportsmanlike conduct: Includes actions such as disrespectfully addressing an official; trying to influence an official's decision; arguing with an official; taunting an opponent; etc.
Free Throw	A shot given to a player from the free throw line as a result of a foul. This shot is worth one point.
Rebound	When a player controls possession of a missed shot, either by a teammate or an opponent.
Pass	The movement of the ball by a player to another player by throwing, batting, or rolling the ball.
Pivot	When a player holding the ball pivots with one foot kept at a point of contact with the floor, while stepping in other directions with the other foot.
Sideline Pass	When a player throws the ball in from the sidelines of the court.
Travelling	When a player advances on the court with the ball without dribbling it.
Violations	When a player breaks a rule without contact. These include: backcourt, basket interference and goaltending, double dribble, faking a free throw, kicking or hitting the ball, out of bounds, shot clock, travelling, and throw-in.
Number of Players: Five players per team on the court at a time.	
Equipment Required:	
• Basketball, • Gymnasium/outdoor court, and • Nets (two).	
Basic Rules:	
• The game consists of two 20-minute halves. • Teams will consist of a point guard, an off guard/shooting guard, a small forward, a power forward, and a centre/post. • The game begins with what is known as a "jump ball". A player from each team will meet face to face at the centre of the court. When the official tosses the ball straight up between them, both players will attempt to catch or hit the ball to a teammate. • Once the game has begun, the player in possession of the ball must dribble at all times in order to continue to move forward along the court. The player may pass the ball at any time to a teammate. • If a player in possession of the ball stops, they may only pivot on the spot or take a maximum of three steps and then pass or shoot the ball towards the basket.	

BASKETBALL
• If a team scores, the opposing team will gain possession of the ball. The opposing team throws the ball inbounds to put the ball back into play. On this throw-in, the thrower cannot step on or over the line while still in possession of the ball. • During the game, if the ball is tossed out of bounds or a person is fouled, the opposite team will gain the ball where a free throw will be awarded or a sideline pass will take place.
Further details on the sport of basketball can be found in Hanlon, Thomas *The Sports Rules Book: Essential Rules for 54 Sports*, Human Kinetics Publishers, Inc., pp. 37 to 46.



Hanlon, Thomas, The Sports Rules Book: Essential Rules for 54 Sports, Human Kinetics Publishers, Inc., p. 41

Figure 5B-2 Basketball Court

FLOOR HOCKEY

Objective: Teams attempt to score as many points as possible by passing the ball through the opposing team's net. The team with the highest score at the end of the game is the winner.

Scoring: A player passing the ball off their stick into the net, scores a goal.

Definitions:

Face-off	When two players meet to try to gain possession of the ball when the referee drops it.
Goal	A point/goal is scored when a player gets the ball across the goal line.
Rebound	A puck that bounces off the goalkeeper or the goal post.
Save	When the goalkeeper prevents a goal from being scored.

Number of Players: Six players per team on the floor at one time.

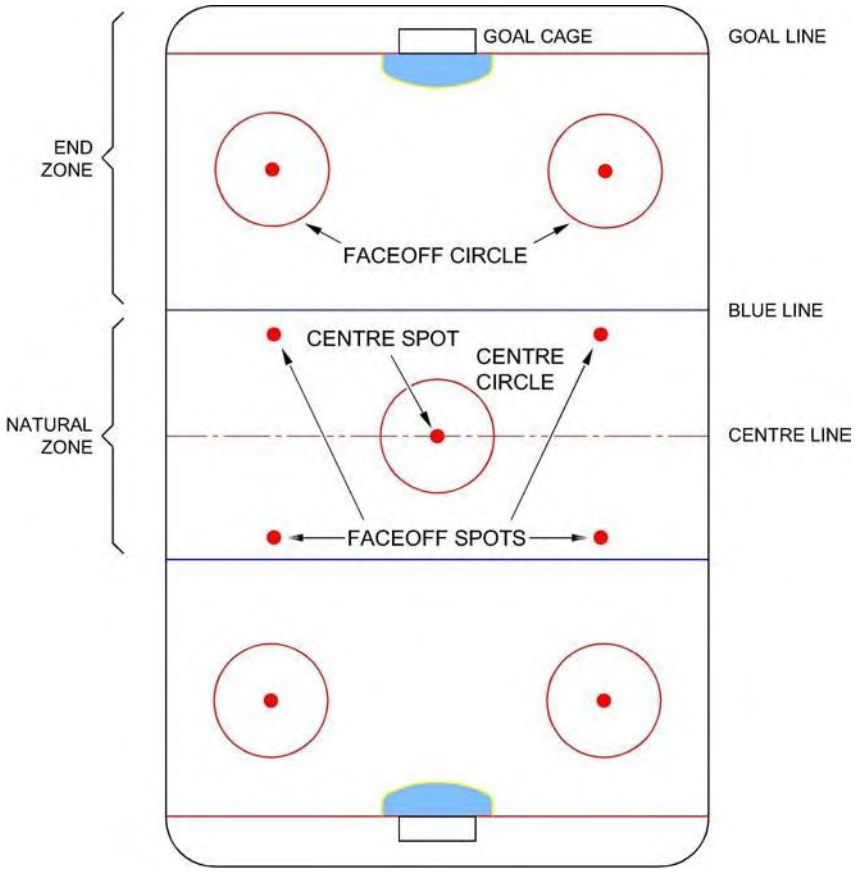
Equipment Required:

- Hockey ball,
- Hockey sticks for the number of players,
- Goalie sticks (two),
- Goalie equipment, and
- Hockey nets (two).

Basic Rules:

- A game consists of three 20-minute periods.
- Teams will consist of a goalkeeper, three forwards—centre, left wing, and right wing—and two defencemen.
- A game begins with a faceoff between two opposing players where an official drops the ball at the centre of the playing field/gymnasium.
- Players advance with the ball while stickhandling the ball or passing it to fellow teammates. The ball must be in motion at all times.
- Every time a goal is scored, the players return to the initial set-up for a faceoff at the centre of the area of play.
- If an attacker in the team's attacking zone causes the play to stop, a face-off will occur at the nearest face-off spot in the neutral zone (the central portion between the blue lines).
- If a defender in the team's defensive zone causes the play to stop, a face-off occurs at the point of stoppage.

Further details on the sport of hockey can be found in Hanlon, Thomas, *The Sports Rules Book: Essential Rules for 54 Sports*, Human Kinetics Publishers, Inc., pp. 159 to 168. These rules then must be adapted for floor hockey.



Hanlon, Thomas, The Sports Rules Book: Essential Rules for 54 Sports, Human Kinetics Publishers, Inc., p. 162

Figure 5B-3 Hockey Set Up

FOOTBALL (FLAG/TOUCH)

Objective: Teams attempt to score as many points as possible through touchdowns. The team with the highest score at the end of the game is the winner.

Scoring:

Touchdown	A touchdown is worth six points and is scored when a player carries the ball into the opponent's end zone or catches the ball in the opponent's end zone before it touches the ground. After a touchdown has been scored, the scoring team can make a one-point convert attempt from the 5-yard line (approximately 4-1/2 metres/15 feet) or a two-point convert attempt from the 10-yard line (approximately 11 metres/36 feet).
Safety	An interception return to the opponent's end zone, on any extra-point play by the defence, will result in the defence scoring two points, plus they will gain possession for the next series at their own 5-yard (4-1/2 metres/15 feet) line.
Rouge	A team is awarded one point when they legally kick the ball into the opponent's end zone and the ball is not brought out of the end. To score off a kick off, the ball must land in the field of play or in the end zone before it goes out of bounds.

Definitions:

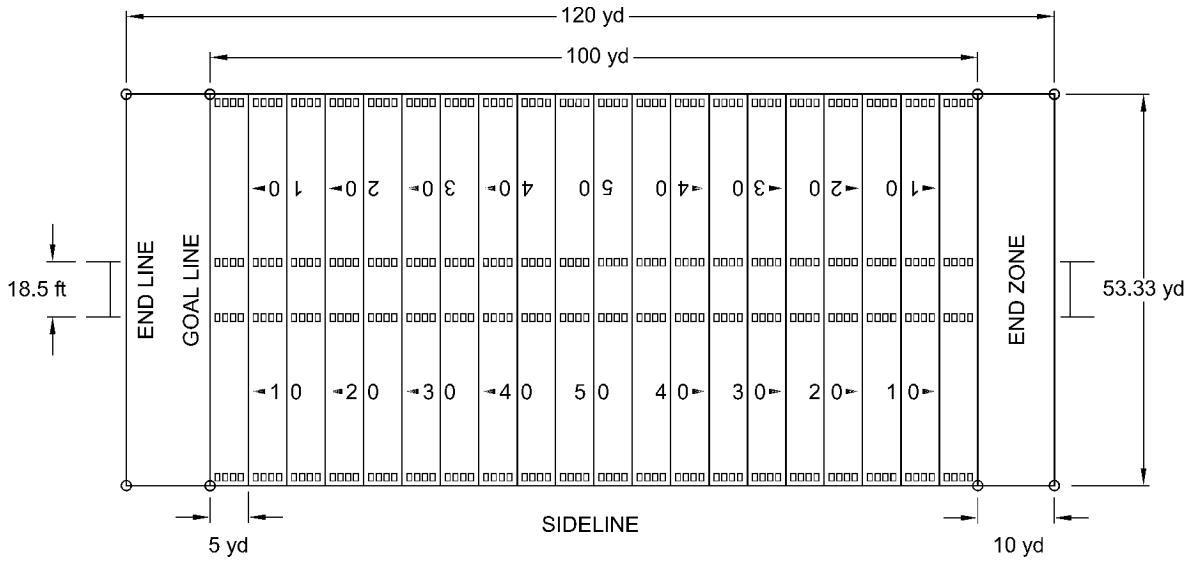
Convert	A pass or a run attempt; no kicking allowed.
Dead Ball	When the ball is no longer in play and the play is over.
First Down	Is a new set of three downs. Each team, when they are the offence, get three downs in which to make a play.
Forward Pass	When the ball is intentionally thrown or handed towards the opponent's goal line.
Fumble	When a player loses possession of the ball while the play is still in progress.
Punt	When the ball is deliberately dropped and then kicked with the foot or leg before the ball touches the ground.
Scrimmage Line	The line where the players line up for the snap.
Snap	When a player designated as the centre passes the ball between the legs to the quarterback.
Touchback	Occurs when the ball is dead on or behind a team's own goal line, provided the ball's force came from an opponent and it is not a touchdown.

Number of Players: Seven players per team on the field at one time for touch football. Eight players per team on the field at one time for flag football.

Equipment Required:

- Football,
- Flags/ribbons,
- Field, and
- Safety/protective equipment.

FOOTBALL (FLAG/TOUCH)
Basic Rules:
• The game consists of four 15- to 18-minute quarters. • Whichever team takes first possession of the ball is the offence. The other team becomes the defence. • The offence has three downs to obtain 10 yards, keep possession of the ball, and attempt to score. If they do not gain 10 yards and a first down, possession of the ball changes and that team then becomes the offence. • To begin the game, a team will kick off from their own 45-yard line (or on a non-regulation field, ten yards back from the centre line). The remaining players of the team must stay behind the kick off line until the ball has been kicked. • At the kick off, all players of the receiving team must be at least 20 yards away from the kick off line. • To begin a series of three downs, the ball will be placed on the ground at the point where the ball carrier was touched after the kick off. All members of the offensive team will line up on or behind the line of scrimmage. A player designated as the centre will begin the play by snapping the ball between the legs to the quarterback who must receive the ball from a minimum of five yards behind the line of scrimmage. • The defensive players must be at least one yard from the line of scrimmage on the opposite side during the snap. • All players on the offence, with the exception of the centre, can be in motion prior to the snap. They may not cross the line of scrimmage until after the snap. • In touch football, play is terminated when a defender touches the ball carrier with the hand. In flag football, play is terminated when a defender removes the ball carrier's flag. • The defensive team will have one player during scrimmage play, called the rusher, who will pursue the quarterback after the ball is snapped. The rusher must be at least five yards away from the line of scrimmage at the time the ball is snapped and cannot be lined up directly with the centre of the opposing team. • No player is permitted to block or obstruct the rusher in the direct path to the quarterback. • Teams are only permitted one forward pass on each scrimmage play. Forward passes are not permitted on kick offs or after punts. • The team that plays defence at the beginning of the first half receives possession at the start of the second half. • If a team fails to make it across midfield within three plays, possession of the ball changes. • Once a ball is punted, the team gives up possession of the ball. • There are no fumbles in touch football. • Must be played as **non-contact**. Blocking and tackling are not allowed.
Further details on the sport of football can be found in Hanlon, Thomas, *The Sports Rules Book: Essential Rules for 54 Sports*, Human Kinetics Publishers, Inc., pp. 125 to 136. These rules must be adapted for flag/ touch football. Some of these modifications can be found on pp. 132 to 133. Further rules may be found in the *National Football Federation's Touch Football Rule Book*.



Hanlon, Thomas, The Sports Rules Book: Essential Rules for 54 Sports, Human Kinetics Publishers, Inc., p. 129

Figure 5B-4 Football Field

LACROSSE

Objective: Teams attempt to score as many points as possible by passing the ball into the opposing team's goal. The team with the highest score at the end of the game is the winner.

Scoring: A goal is scored when the ball passes completely over the goal line, between the posts, and under the cross bar of the opponent's goal.

Definitions:

Blocking	Occurs when one player moves into the path of an opponent with the ball without giving the opponent a chance to stop or change direction without contact.
Critical Scoring Area	An area at each end of the field, where the attacking team shoots for a goal.
Deputy	A player on the defensive goalkeeper's team who may enter the goal circle when his or her team is in possession of the ball and the goalkeeper is out of the goal circle.
Draw	With two opposing players toeing the centreline, holding their crosses in the air, parallel to the centreline. The umpire places the ball between the players and when they call ready the players pull their sticks up and away, lifting the ball into the air. All other players must be outside the centre circle for the draw.
Free Space to Goal	The path to the goal within the critical scoring area.
Marking	Guarding an opponent within a stick's length.
Penalty Lane	The path to the goal that is cleared when a free position is awarded to the attacking team within the critical scoring area in front of the goal line.
Pick	A technique used by a player without the ball to force an opponent to take a different direction. The player must give the opponent time to see the pick and react to it.
Throw	Two players of opposing teams stand one metre (3-1/3 feet) apart; the umpire stands four to eight metres (13 to 26 feet) away, and throws the ball into the air and the players take it as they move toward the field. No other player can be within four metres (13 feet) of the players taking the throw.

Number of Players: Twelve players per team on the field at one time.

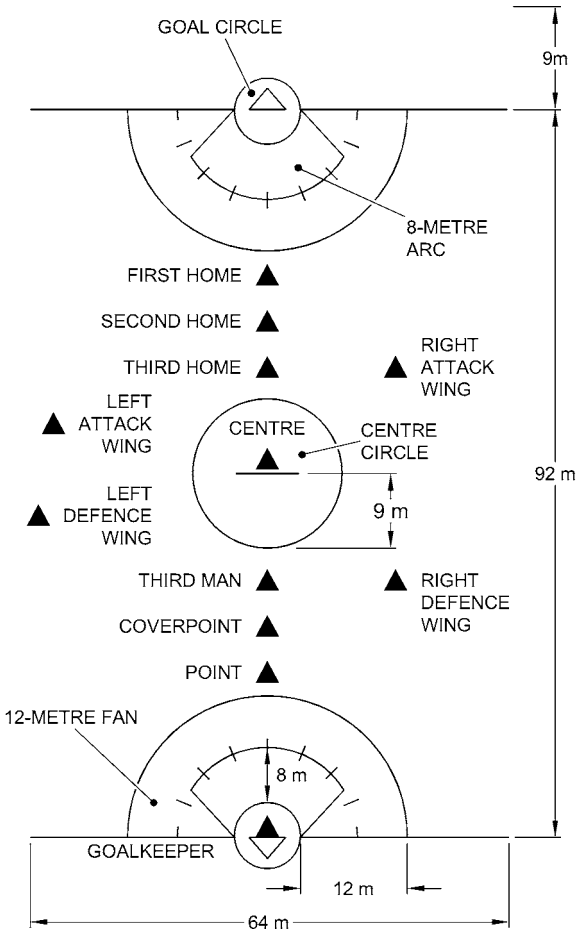
Equipment Required:

- Ball,
- Field crosses for the number of players,
- Goalkeeper's crosse (two),
- Goalkeeper's helmet, face mask, and throat and chest protector (two of each), and
- Mouth guards for the number of players.

Basic Rules:

- The game consists of two 30-minute halves.

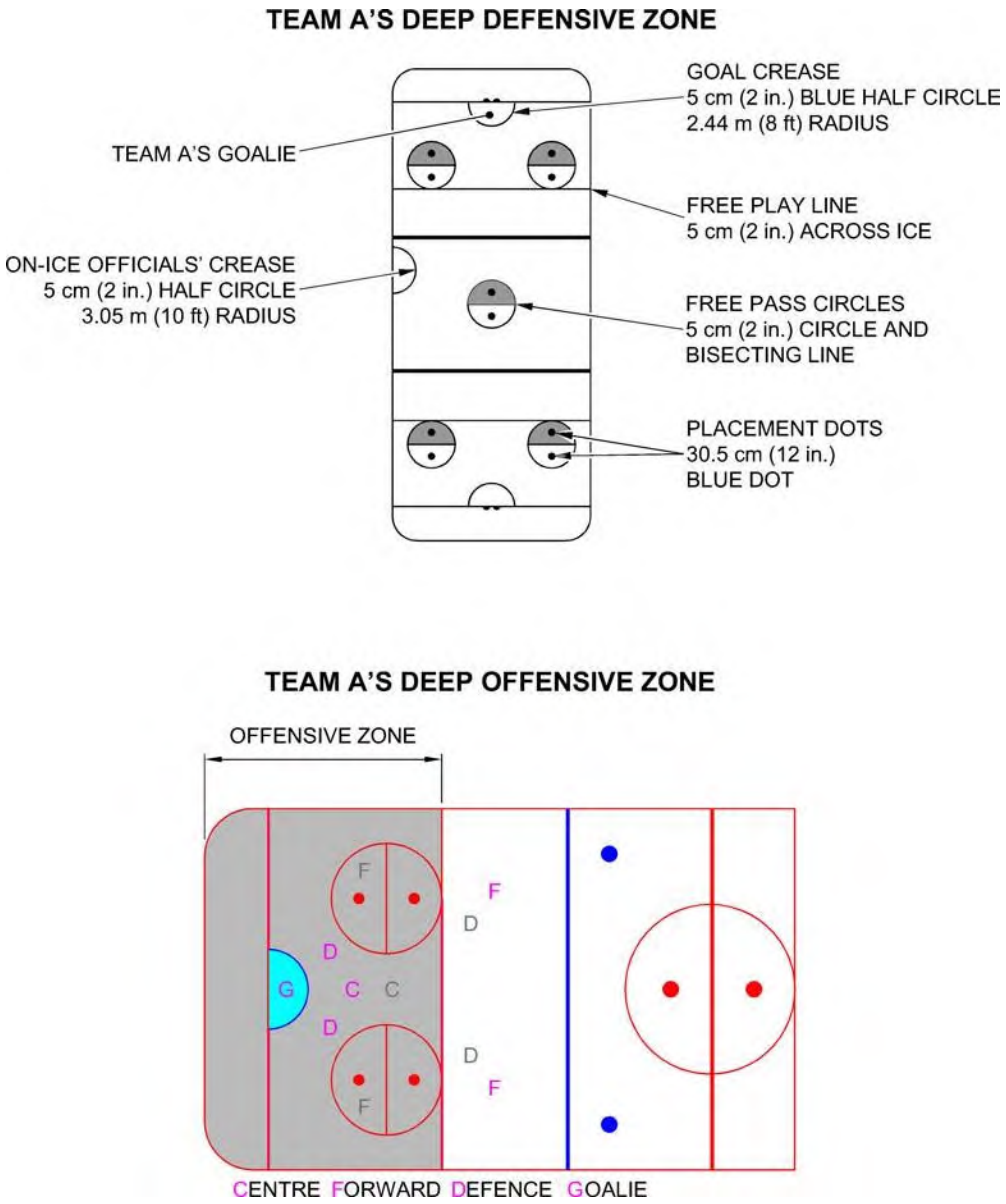
LACROSSE
• The team consists of a goalkeeper, point, coverpoint, third man, left defence wing, right defence wing, left attack wing, right attack wing, third home, second home, first home, and centre, as per Figure 5B-5. • The game begins with a draw. • The team in possession of the ball attempts to score goals by advancing the ball down the field. This is done by carrying, throwing, rolling, or batting the ball. • If the ball goes out of bounds, it is given to the closest player. If two players of opposing teams are an equal distance from the ball, the game is continued with a throw. • Only one player can be in the goal circle at a time. This can only be the goalkeeper or the deputy. • Within the goal circle, the goalkeeper must clear the ball within 10 seconds. This can be done with the goalkeeper's crosse, hands, or body. • After each goal, the ball is put back into play with a draw.
Further details on the sport of lacrosse can be found in Hanlon, Thomas, *The Sports Rules Book: Essential Rules for 54 Sports*, Human Kinetics Publishers, Inc., pp. 179 to 186.



Hanlon, Thomas, The Sports Rules Book: Essential Rules for 54 Sports, Human Kinetics Publishers, Inc., p. 182

Figure 5B-5 Lacrosse Field

RINGETTE (OFF ICE VERSION)
Objective: Teams attempt to score as many points as possible by getting the ring in the opposing team's net. The team with the highest score at the end of the game is the winner.
Scoring: One point for every time a player gets the ring in the opposing team's net.
Definitions: N/A.
Number of Players: Six players per team on the floor at one time.
Equipment Required:
• Nets (two), • Safety equipment, • Rubber ring, • Straight sticks for number of players, • Goalkeeper's sticks (two), and • Goalkeeper's masks (two).
Basic Rules:
• Play begins with the visiting team being given a free centre free pass circle (which is like a faceoff circle in hockey). • Teams consist of a goalkeeper, two defencemen, and three forwards. • The ring is passed up the playing field in order to get the ring in the opposing team's net. • Free passes are used in ringette to restart play. The ring is placed in the free pass circle for this and one player gets to take possession, having five seconds to pass the ring to a teammate. Shots on goal are allowed from the free pass. • The stick is placed inside the ring to play. • If the ring is within the goal crease the only player who is allowed to touch it is the goalie. The goalie will pick up the ring and throw it like a Frisbee to a teammate but it cannot be thrown beyond the blue line. The goalkeeper can also hit the ring with their stick or foot to move it out of the goal crease.
Further details on the sport of ringette can be found at www.ringette.ca.



"How Ringette Is Played", Ringette Canada. Retrieved 30 October 2006, from http://www.ringette.ca/e/about/played.htm

Figure 5B-6 Ringette Ice/Playing Field

SOCCER

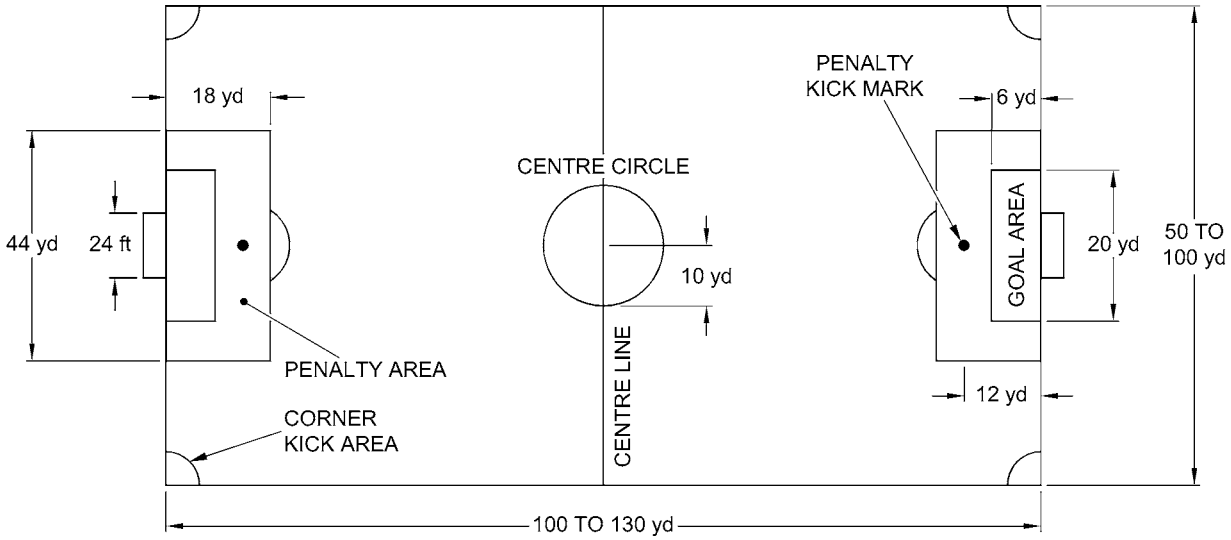
Objective: Teams attempt to score as many points as possible by getting the ball in the opposing team's net. The team with the highest score at the end of the game is the winner.

Scoring: One point is scored for every goal made into the opposing team's net which completely crosses the goal line.

Definitions:

Corner Kick	Awarded to the opposing team when players kick the ball over their own goal line. All opposing players must be at least 10 yards (9 metres/29-1/2 feet) from the ball for a corner kick.
Dribble	To move the ball with the feet in a continuous motion by passing the ball from one foot to the other.
Foul	Results in a direct or indirect free kick for the opposing team at the spot where the foul occurred. Fouls include: • kicking, tripping, or pushing; • jumping into an opponent; • violently or dangerously charging an opponent; • striking an opponent with the hand, arm, or elbow; • holding an opponent's body or clothing; • playing the ball anywhere on the arm; • offsides; • obstructing an opponent by deliberately blocking their path; • kicking too high, putting an opponent in danger; • bending low, putting themselves in danger; • unsportsmanlike conduct; • charging an opponent when the ball is no more than one step away; • charging into the goalkeeper while in the goal area, preventing them from playing the ball or retaining possession of the ball; and • the goalkeeper taking more than four steps before releasing the ball.
Free Kick	Direct free kicks are awarded for fouls on a player; indirect free kicks are awarded for other violations made by the opposing team.
Goal Kick	Occurs when a player kicks the ball over the opposing team's goal line. The opposing team is awarded the goal kick. Opposing players must be outside the penalty box area; either the goalkeeper or another player may kick the ball. The ball must be kicked beyond the penalty box area to be put into play. The player who performs the goal kick cannot touch the ball again until another player has done so.
Heads the Ball	When a player hits the ball with their head.
Penalty Kick	Is awarded to a team when an opposing player commits an intentional foul. All players, except the kicker and the goalkeeper, must stand outside the penalty area, at least ten

SOCCER	
	yards (9 metres/29-1/2 feet) from the ball. The goalkeeper must stand on the goal line and not move their feet until the kick is made. If a goal is not scored and the ball goes out of bounds after being touched by the goalkeeper, the attacking team gets a corner kick.
Throw-in	Is awarded to a team when the ball goes over the sideline and was last touched by an opponent. A player throws the ball in from over their head, keeping both feet on the ground while releasing the ball. At least part of each foot must be on or behind the sideline.
Number of Players: Up to 11 players per team on the field at one time.	
Equipment Required:	
• Soccer ball, • Nets (two), and • Field or gymnasium.	
Basic Rules:	
• The game consists of two 45-minute halves. • Teams will consist of a goalkeeper, defenders, midfielders, and forwards, or strikers. • The game begins with a kickoff at the centre of the playing field, where the ball is placed in a stationary position at the centre spot. • All players must be on their team's half of the playing field before the kick off takes place. The player who kicks off may not touch the ball again until another player has. • Players have to move the ball up the field with their feet, head, or chest. They may not touch the ball with their hands. • The game continues in this manner, with players dribbling the ball and moving it toward the opposing teams goal in order to score. • When a goal is scored the play begins again with the team losing the goal taking the kick off. • A goal may not be scored directly off a kick off, goal kick, or throw-in.	
Further details on the sport of soccer can be found in Hanlon, Thomas, *The Sports Rules Book: Essential Rules for 54 Sports*, Human Kinetics Publishers, Inc., pp. 237 to 245.	



Hanlon, Thomas, The Sports Rules Book: Essential Rules for 54 Sports, Human Kinetics Publishers, Inc., p. 241

Figure 5B-7 Soccer Field

SOCCER BASEBALL/KICKBALL

Objective: While trying to prevent the opposing team from scoring runs, each team tries to score as many runs as possible. A run is scored when a team's player runs (in a counter-clockwise direction) and steps on all three bases and the home plate.

Scoring: One point is awarded as a member completes a circuit around the bases. A game lasts nine innings where the team with the highest score wins, unless there is a tie. In the case of a tie the game will continue for additional innings until a team, scoring an additional run, breaks the tie.

Definitions:

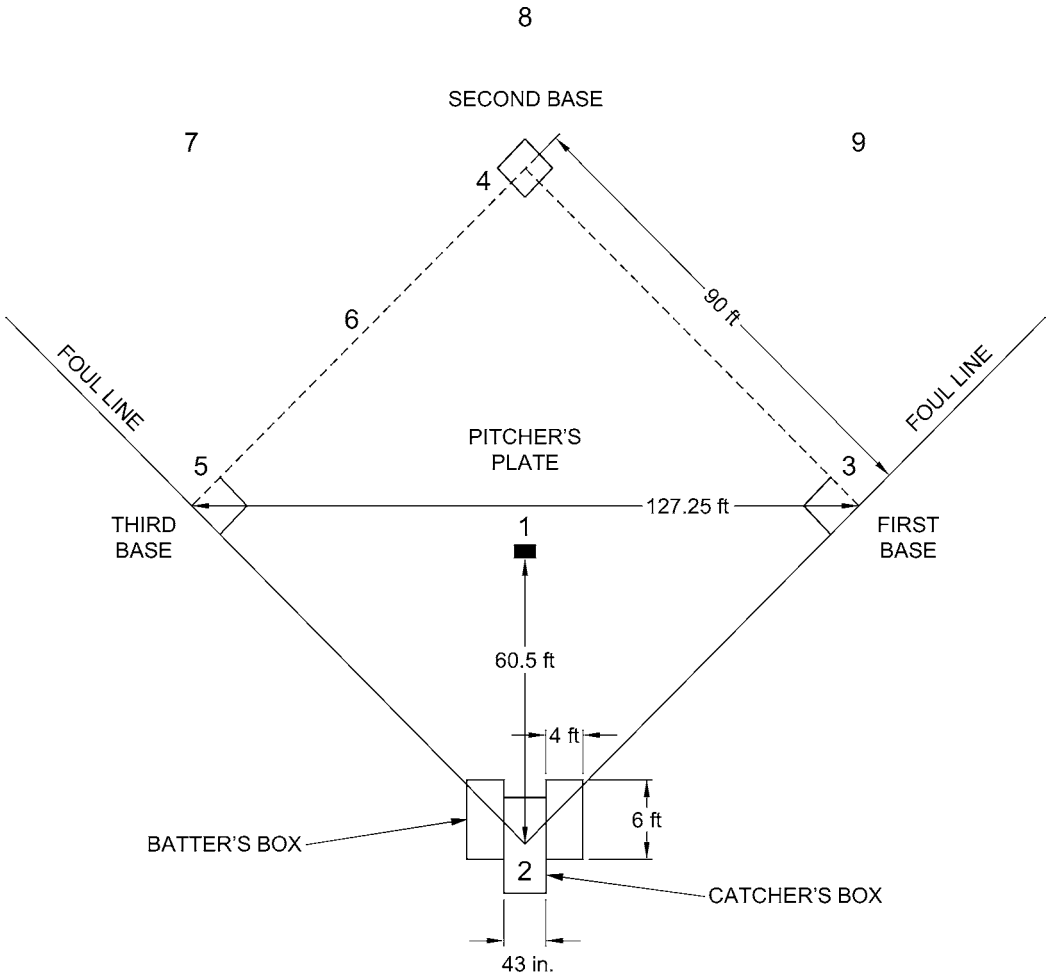
Double Play	When two outs are made on the same play.
Double	A kick in which the batter safely runs to second base.
Fair Ball	The ball when it is legally in play.
Force Play	Occurs when a runner is forced to advance to the next base because the batter becomes a runner.
Foul Play	Any ball hit into foul territory.
Foul Territory	The area outside the foul lines.
Home Run	When a batter kicks a fair ball over the fence or circles all bases on a kick that was inside the fence.
Lead Off	When a runner leads off a base before the ball has left the pitcher's hand.
Legal Touch	When a defensive player tags a runner with the ball while the runner is not on a base. This results in an out.
Out	An out can be given due to strikeout, force-out, tag-out, and fly-out.
	Strikeout — When a batter has three strikes.
	Force-out — When a fielder touches second base with the ball in their possession before the runner reaches second.
	Tag-out — When a fielder tags a runner with the ball when they are not on a base. This is also known as a legal touch.
	Fly-out — When a fly ball is caught before it touches the ground or fence.
Steal	When a runner attempts to steal a base during a pitch to the kicker.
Tag-up Rule	If the ball is caught in the air after the kicker has kicked it, the kicker is out. Other players who are on bases must touch the base they were on after the ball is caught before they can run to the next base.

Number of Players: Eight players per team on the field at one time.

Equipment Required:

- Soccer ball,

SOCCER BASEBALL/KICKBALL
• Baseball/softball field or a gymnasium or field, and • Bases/pylons (four).
Basic Rules:
• The game consists of five innings, with three outs per inning (for each team). • One team takes the field first, taking up the various positions, to include a pitcher, catcher, first baseman, second baseman, third baseman, shortstop, left fielder, centre fielder, right fielder, and other fielders depending on the number of players. • When pitching, the ball must touch the ground at least once and cannot be higher than one foot above the plate when it gets to the kicker. The ball should be pitched to roll as smoothly as possible. • A ball is put into play once the pitcher rolls the ball toward home plate and the kicker has attempted to kick the ball. • The kicker must wait for the ball to be within three feet of the home plate before they can attempt to kick the ball. • Leading off and stealing bases is not allowed. • Bunts are not permitted. • The kicker at home plate must kick the ball with the leg or foot, below the knee. • Field players can tag the runner out while either carrying the ball or throwing it at the runner and making contact. Thrown balls are to hit below the waist. • A runner who leaves their base before the pitch reaches home plate or before the pitch is kicked, is out and the ball is considered dead.
Further details on the sport of soccer baseball/kickball can be found at www.kickball.com



LEGEND

1. Pitcher
2. Catcher
3. First Baseman
4. Second Baseman
5. Third Baseman
6. Shortstop
7. Left Fielder
8. Centre Fielder
9. Right Fielder
10. Extra Fielder

Hanlon, Thomas, The Sports Rules Book: Essential Rules for 54 Sports, Human Kinetics Publishers, Inc., p. 31

Figure 5B-8 Baseball Diamond (Can Be Used for Soccer Baseball)

SOFTBALL (SLOW PITCH)

Objective: While trying to prevent the opposing team from scoring runs, each team tries to score as many runs as possible. A run is scored when a team's player runs (in a counterclockwise direction) and steps on all three bases and the home plate.

Scoring: One point is awarded as a member completes a circuit around the bases. A game lasts nine innings where the team with the highest score wins, unless there is a tie. In the case of a tie the game will continue for additional innings until a team scoring an additional run, breaks the tie.

Definitions:

Ball	A pitch that is outside the strike zone.
Bunt	When a batter hits the ball by letting the ball meet the bat to drop as a soft ground ball on the infield.
Double Play	When two outs are made on the same play.
Fair Ball	The ball when it is legally in play.
Fake Tag	A form of obstruction of a runner by a fielder who neither has the ball nor is about to receive it. The umpire will award the runner the base they would have made, if the obstruction had not been made.
Fly Ball	A ball batted high into the air.
Fly-out	A fly ball that is caught before it touches the ground or the fence.
Force Play	When a runner is forced to advance to the next base because the batter becomes a runner.
Foul Play	Any ball hit into foul territory.
Foul Territory	The area outside the foul lines (see Figure 5B-9).
Home Run	When a batter hits a fair ball over the fence or circles all bases on a ball that was hit inside the fence.
Inning	An inning consists of a top and a bottom. During either the top or bottom half each team will get the opportunity to bat and field accordingly.
Interference	This occurs when an offensive player impedes or confuses a defensive player as they are trying to make a play. Interference can be physical or verbal.
Lead Off	When a runner leads off a base once the ball has been batted, touches the ground, or reaches home plate, but must return to the base if the ball is not hit.
Out	An out can be given due to strikeout, force-out, tag-out, and fly-out.
	Strikeout — When a batter has three strikes.
	Force-out — When a fielder touches second base with the ball in their possession before the runner reaches second.

SOFTBALL (SLOW PITCH)		
	Tag-out	When a fielder tags a runner with the ball when they are not on a base. This is also known as a legal touch.
	Fly-out	When a fly ball is caught before it touches the ground or fence.
Overslide	When a player over slides first base when running. It is allowed at first base, but at second and third base, the runner may be tagged out.	
Steal	In fast-pitch, a runner may attempt to steal a base during a pitch to the batter.	
Strike Zone	The area over the home plate, between the batter's back shoulder and front knee.	
Walk	A batter is awarded first base if four "balls" are pitched to the batter during one time up to bat.	

Number of Players: 10 players per team on the field at a time if team is not batting.

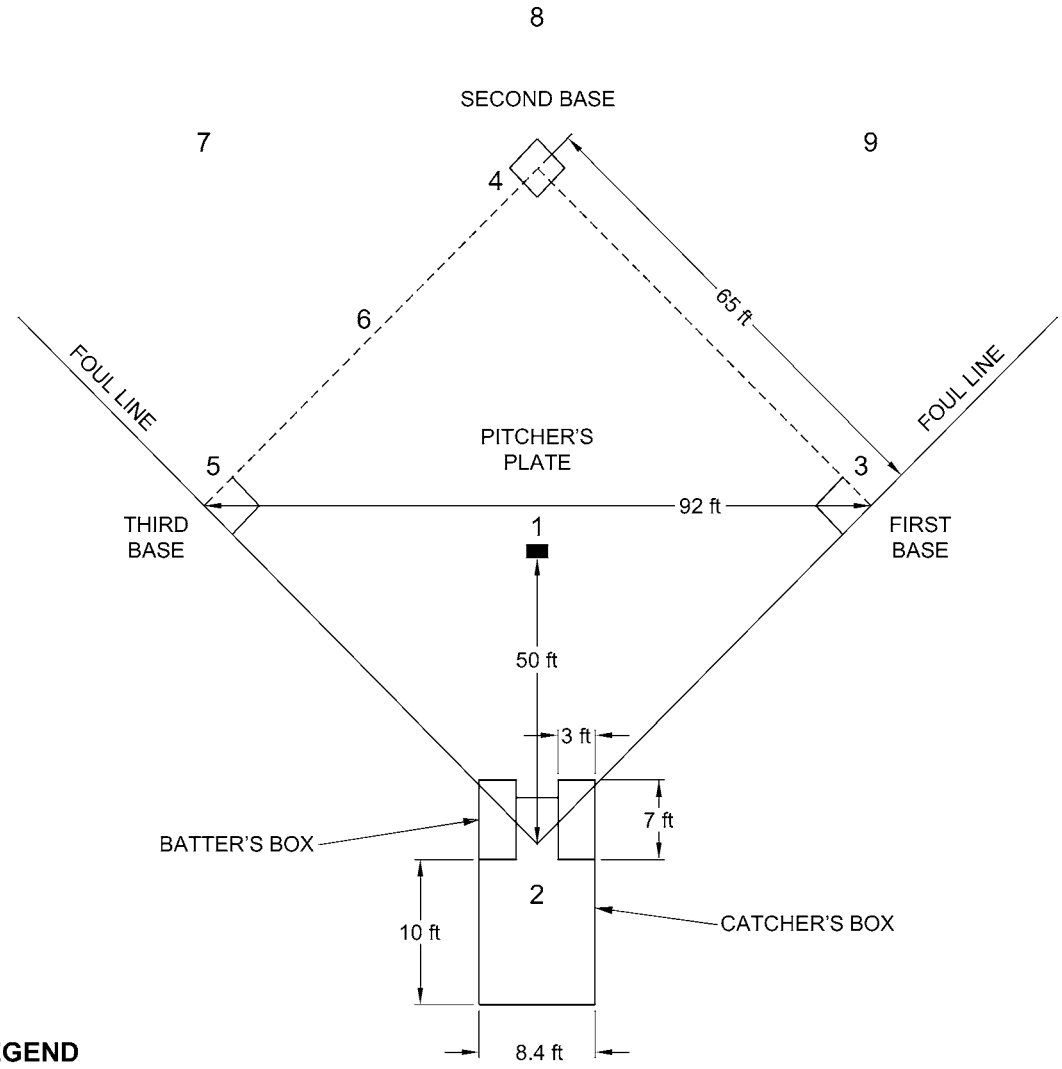
Equipment Required:

- Bases (four),
- Bat,
- Batter's helmets,
- Softball,
- Various gloves for the number of players, and
- Baseball/softball field.

Basic Rules:

- The game consists of seven innings, with three outs per inning (for each team).
- One team takes the field first, taking up the various positions, to include a pitcher, catcher, first baseman, second baseman, third baseman, shortstop, left fielder, centre fielder, right fielder, and extra fielder.
- The other team bats first in the top half of the inning, according to the batting order for their players.
- The pitcher attempts to get the batter out, preventing them from reaching first base and the subsequent bases.
- The pitcher **must** use an underhand pitch.
- A batter is out if they receive a strikeout, force-out, tag-out, or fly-out.
- The batter's objective is to get around the bases without being tagged and before the ball reaches the base.
- A team scores a run when a player has safely touched first, second, and third base, and has made it back home or hits the ball over the fence.

Further details on the sport of softball can be found in Hanlon, Thomas, *The Sports Rules Book: Essential Rules for 54 Sports*, Human Kinetics Publishers, Inc., pp. 247 to 259.



LEGEND

1. Pitcher
2. Catcher
3. First Baseman
4. Second Baseman
5. Third Baseman
6. Shortstop
7. Left Fielder
8. Centre Fielder
9. Right Fielder
10. Extra Fielder

Hanlon, Thomas, The Sports Rules Book: Essential Rules for 54 Sports, Human Kinetics Publishers, Inc., p. 251

Figure 5B-9 Softball Field

ULTIMATE FRISBEE

Objective: Teams attempt to score as many points as possible by catching a pass in the opponent's end zone. The team with the highest score at the end of the game is the winner.

Scoring: Points are awarded to a team when a player catches a pass in the opponent's end zone. A typical game is scored to 15 points.

Definitions:

Clearing	To get out of the area where the thrower wants to pass the disc.
Cut	An attempt to get free of other players in order to receive a pass.
Force	To make it difficult for the thrower to throw the disc in a certain direction in an attempt to try to get them to pass it the other way.
Huck	A long high pass that is nearly the length of the field.
Layout	When a player dives to catch or intercept the disc.
Poach	When a defender moves away from their marker to try to intercept a pass to another player.
Swing	A lateral pass across the pitch, instead of upfield.
Switch	When two defenders exchange the offensive players they were marking.

Number of Players: Seven players per team on the field at one time.

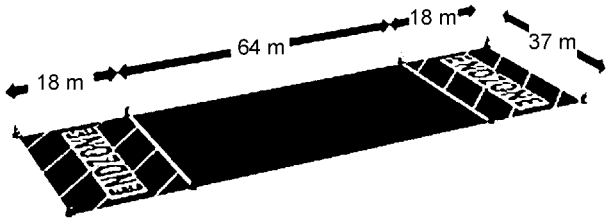
Equipment Required:

- Plastic disc (Frisbee), and
- Pylons to mark boundaries.

Basic Rules:

- Each team lining up on the front of their respective end zone line initiates play. The defence throws the disc to the offence.
- The disc may be played in any direction by passing to teammates. Players must remain stationary when they hold the disc. It must be passed to other players on the field that is closer to the opponent's end zone.
- A player cannot hold the disc for longer than 10 seconds. The defender, who is guarding the player holding the disc (staller), must count out the stall count.
- When a pass is not completed due to being out of bounds, being dropped, blocked or intercepted, etc. the defence takes possession of the disc and becomes the offence.
- To bring the disc back into play it must be brought to the point on the pitch where it went out, or the nearest point where a defender touched it.
- There is no physical contact allowed between the players.
- A throw can be made without stopping if it is within three steps of the catch. The thrower cannot change direction or speed up after catching the disc.

ULTIMATE FRISBEE
Further details on the sport of ultimate Frisbee can be found at www.whatisultimate.com or www.upa.org/ultimate.



"What Is Ultimate Frisbee", What is Ultimate. Retrieved 30 October 2006, from http://www.whatisultimate.com/what/what_game_en.html

Figure 5B-10 Ultimate Frisbee Field

VOLLEYBALL

Objective: Teams attempt to score as many points as possible by hitting the ball into the opposing team's portion of the court. The team with the highest score at the end of the game is the winner.

Scoring: One point is awarded every time the ball hits inside the boundary lines of the opposing teams court; the opponents are unable to return the serve within three hits; the opponents hit the ball out of bounds; or the opponents commit a fault or foul when the team was the serving team.

Definitions:

Attack Hit	A hit aimed into the opponent's court.
Attack Lines	These separate each side of the court into a front zone and a back zone.
Block	Occurs when one or more players stop the ball before, or just after, it crosses the net.
Rally	The exchange of hits back and forth between the teams. The team that wins the rally gets the serve.
Rotation Order	Each team has a rotation order that must be kept when it gains the serve. Each time a team gains a serve, players will rotate one position clockwise.

Number of Players: Six players per team on the court at one time.

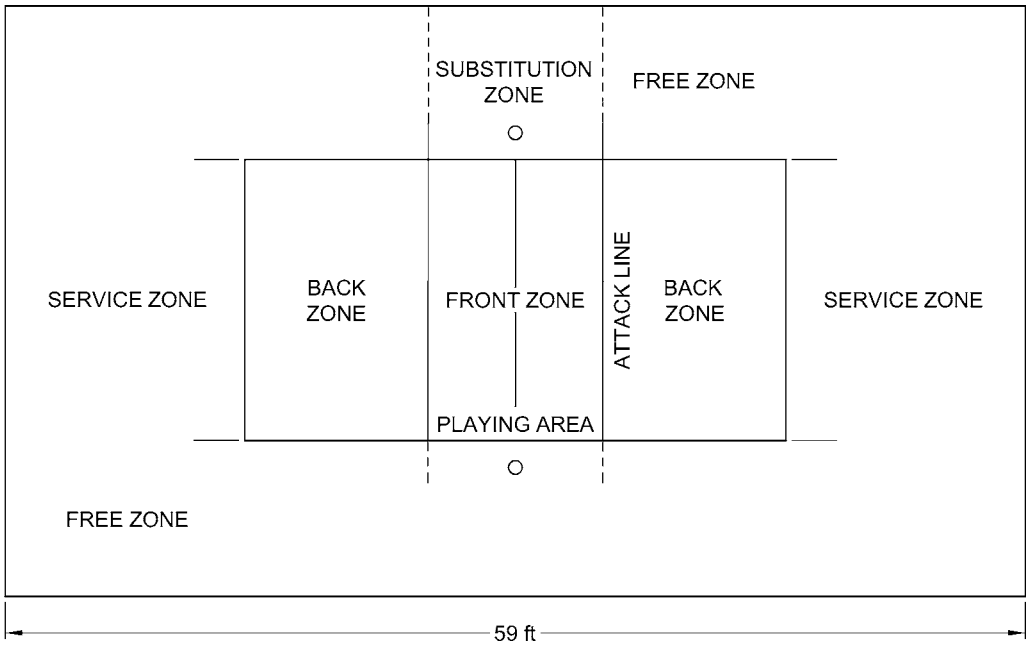
Equipment Required:

- Volleyball,
- Volleyball net, and
- Volleyball court.

Basic Rules:

- The game continues until a team scores 15 points and has a two-point advantage.
- The team has three players on the front of the court and three on the back of the court.
- Players can hit the ball with their hands clasped together or with either an open or closed fist. Players can strike the ball overhand or underhand.
- One team will start the serving, the other receiving. A player retains the serve until the other team wins the right to serve.
- Upon completing the serve a team must rotate positions.
- The server may stand anywhere behind the end line to serve.
- A service fault occurs if the ball touches a player of the serving team; fails to pass through the crossing space over the net; touches the net or any other object; or lands out of bounds.
- Only the serving team can score points.
- If the team that is receiving stops their opponents from scoring, they are awarded the serve.
- Each team has a maximum of three hits to get the ball over the net to return the ball. This is in addition to blocking.
- Except on the serve, the ball is still in play if it touches the net.

VOLLEYBALL
Further details on the sport of volleyball can be found in Hanlon, Thomas, *The Sports Rules Book: Essential Rules for 54 Sports*, Human Kinetics Publishers, Inc., pp. 325 to 334.

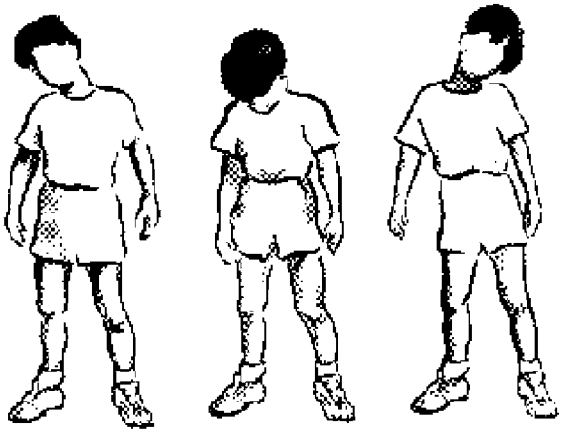


Hanlon, Thomas, The Sports Rules Book: Essential Rules for 54 Sports, Human Kinetics Publishers, Inc., p. 327

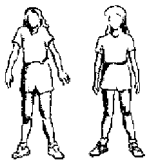
Figure 5B-11 Volleyball Court

SAMPLE STRETCHES

NECK

 *Moving on the Spot: A Collection of 5-Minute Stretch and Movement Sessions, by B. Hanson, 1999, Toronto, Ontario: Toronto Public Health. Retrieved 26 October 2006, from http://www.lin.ca/resource/html/dn3.htm#I1* Figure 5C-1 Neck Stretch	Slowly roll your head across your chest from shoulder to shoulder. Do not roll your head backwards.

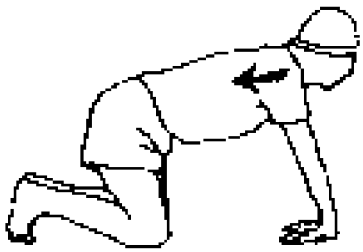
SHOULDERS

 Moving on the Spot: A Collection of 5-Minute Stretch and Movement Sessions, by B. Hanson, 1999, Toronto, Ontario: Toronto Public Health. Retrieved 26 October 2006, from http://www.lin.ca/resource/html/dn3.htm#I1 Figure 5C-2 Shoulder Push	Stand and extend your arms behind you, interlocking your fingers. Push up and back with your shoulders. Hold this position for a minimum of 10 seconds.
 *Moving on the Spot: A Collection of 5-Minute Stretch and Movement Sessions, by B. Hanson, 1999, Toronto, Ontario: Toronto Public Health. Retrieved 26 October 2006, from http://www.lin.ca/resource/html/dn3.htm#I1* Figure 5C-3 Shoulder Shrug	Stand and raise your shoulders as high as possible and then lower your shoulders, stretching your neck up. Pull your shoulders back as far as possible and then round your shoulders forward by pushing your shoulders forward as far as possible. Hold each position for a minimum of 10 seconds.

 Warm Ups, by Martha Jefferson Hospital, Copyright 2001 by Martha Jefferson Hospital. Retrieved 26 October 2006, from http://www.marthajefferson.org/warmup.php Figure 5C-4 Arm Circles	Hold your arms straight out, palms up. Make small circles with your arms, gradually increasing the size. Reverse the direction of your circles.
 Smart Start: A Flexible Way to Get Fit. Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/ Figure 5C-5 Shoulder Stretch	Either standing or sitting, take your right arm in your left hand and bring it across your chest, supporting the joint by holding it behind the elbow. Pull the elbow lightly towards your chest. You should feel the stretch in your right shoulder. Hold this position for a minimum of 10 seconds and repeat on the opposite side.

ARMS

 Exercises. Copyright 1998 by Impacto Protective Products Inc. Retrieved 26 October 2006, from http://www.2protect.com/home.htm Figure 5C-6 Wrist Rotations	Rotate your hands in circular motions at the wrist. Change direction and repeat on both sides.
 Smart Start: A Flexible Way to Get Fit. Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/ Figure 5C-7 Triceps Stretch	Stand and bring your right arm over your head, bent at the elbow. Use your left hand to gently pull your arm down. Hold this position for a minimum of 10 seconds and repeat on the opposite side.

 *Exercise Programme for Squash, Tennis, Softball, Handball. Retrieved 26 October 2006, from http:// www.physionline.co.za/conditions/article.asp?id=49* Figure 5C-8 Forearm Stretch	In a kneeling position, place your hands on the floor in front of you with your fingers pointing toward your knees, and your thumbs pointing out. Keeping your hands flat on the floor, lean back. Hold this position for a minimum of 10 seconds.

CHEST AND ABDOMINALS

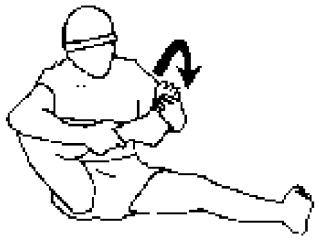
 Smart Start: A Flexible Way to Get Fit. Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/ Figure 5C-9 Chest Stretch	Stand facing a wall. With your right arm bent and your elbow at shoulder height, place your palm against the wall. Turn your body away from your right arm. You should feel the stretch on the front side of your armpit and across the front of you chest. Hold this position for a minimum of 10 seconds and repeat on the opposite side.
 Moving on the Spot: A Collection of 5-Minute Stretch and Movement Sessions, by B. Hanson, 1999, Toronto, Ontario: Toronto Public Health. Retrieved 26 October 2006, from http://www.lin.ca/resource/html/dn3.htm#I1 Figure 5C-10 Side Stretch	Stand with your left arm up over your head. Bend at the waist towards the right side of your body. Hold this position for a minimum of 10 seconds and repeat on the opposite side.

BACK

 Smart Start: A Flexible Way to Get Fit. Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/ Figure 5C-11 Lower Back Stretch	Lie on your back and bring your knees toward your chest. Grasp the back of your knees. Hold this position for a minimum of 10 seconds.
 Smart Start: A Flexible Way to Get Fit. Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/ Figure 5C-12 Upper Back Stretch	Extend your arms straight in front of you at shoulder height crossing one arm over the other. With the palms facing each other, intertwine your fingers and press out through your arms. Let your chin fall to your chest as you exhale. You should feel the stretch in the upper back. Hold this position for a minimum of 10 seconds and repeat on the opposite side.

LEGS

 Smart Start: A Flexible Way to Get Fit. Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/ Figure 5C-13 Hamstring Stretch	Lie flat on the floor with your knees bent and your back flat on the floor. Slowly raise and straighten one leg, grasping it behind your thigh with both hands. Hold this position for a minimum of 10 seconds.

 Smart Start: A Flexible Way to Get Fit. Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/ Figure 5C-14 Inner Thigh Stretch	Sit on the floor with your knees bent and the soles of your feet together. Grab your toes and pull yourself forward while keeping your back and neck straight. Hold this position for a minimum of 10 seconds. Grab your ankles and push your knees down toward the floor with your elbows. Hold this position for a minimum of 10 seconds.
 Smart Start: A Flexible Way to Get Fit. Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/ Figure 5C-15 Hip Flexor	Kneel on your right knee. Position your left foot in front of you, bending your knee and placing your left hand on that leg for stability. Keep your back straight and abdominal muscles tight. Lean forward, shifting more body weight onto your front leg. You should feel the stretch in the front of your hip and the thigh of the leg you are kneeling on. Cushion your kneecap with a folded towel if necessary. Hold this position for a minimum of 10 seconds and repeat on the opposite side.
 *Running Exercises. Retrieved 26 October 2006, http:// www.physionline.co.za/conditions/article.asp?id=46* Figure 5C-16 Ankle Rotations	From a sitting position, rotate your foot in a clockwise, and then a counterclockwise, direction. Switch and repeat on the opposite side.

 Smart Start: A Flexible Way to Get Fit. Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/ Figure 5C-17 Calf Stretch	Stand three steps away from and facing a wall. Step in towards the wall with your right leg, bending your right knee and keeping your left leg straight. Extending your arms with your palms forward, reach out to the wall and let your body fall toward the wall. Keep your toes forward and your heels down. Lean your body into the wall with your left leg straight behind your body. You should feel the stretch in your left calf. Hold this position for a minimum of 10 seconds and repeat on the opposite side.
 Smart Start: A Flexible Way to Get Fit. Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/ Figure 5C-18 Quadriceps Stretch	Stand with your hand against a wall for balance. Lift your left foot off the ground, bending your knee as if you are trying to kick your bottom with your heel. Do not lean forward at the hips. Grab and hold your ankle with your left hand. You should feel the stretch in your left thigh. Hold this position for a minimum of 10 seconds and repeat on the opposite side.

CHAPTER 6

PO 206 – FIRE THE CADET AIR RIFLE DURING RECREATIONAL MARKSMANSHIP

COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 1

EO M206.01 – PARTICIPATE IN A RECREATIONAL MARKSMANSHIP ACTIVITY

Total Time: 90 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content, unit range standing orders, and become familiar with the material, prior to delivering the lesson. Photocopies of the targets found in the Annexes may be required depending on the activities chosen.

Construct a range IAW A-CR-CCP-177/PT-001, *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual*.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TP1 to present important information about the marksmanship activity.

A practical activity was chosen for TP2 as it is an interactive way to allow cadets to experience recreational marksmanship in a safe and controlled environment. This activity contributes to the development of marksmanship skills and knowledge in a fun and challenging setting.

INTRODUCTION

REVIEW

The review for this lesson will be from EO M106.02 (Carry Out Safety Precautions on the Cadet Air Rifle).

SUGGESTED QUESTIONS

Q1. Why do we follow safety regulations?

Q2. How would you verify the safety catch is ON?

Q3. What are the four “ACTS” of firearm safety?

ANTICIPATED ANSWERS

A1. We follow safety regulations to prevent accidents with the cadet air rifle.

A2. When the safety is ON, no red can be seen.

A3. The mnemonic “ACTS” stands for:

- Assume every firearm is loaded.
- Control the muzzle direction at all times.
- Trigger finger must be kept off the trigger and out of the trigger guard.
- See that the firearm is unloaded (prove it safe).

OBJECTIVES

By the end of this lesson, the cadets shall have participated in a recreational marksmanship activity.

IMPORTANCE

It is important for cadets to participate in a recreational marksmanship activity because it allows them to experience marksmanship in a fun, dynamic, and safe setting.

Teaching Point 1 **Conduct a Range Briefing**

Time: 10 min Method: Interactive Lecture

A range briefing is conducted to pass on vital information and answer any questions the cadets may have prior to participating in a marksmanship activity. The range briefing is required to ensure the safe execution of a marksmanship activity.

RANGE BRIEFING

- Explain pertinent sections of the local range standing orders.
- Rules to be observed on all ranges include:
  - proving that rifles are safe prior to being picked up, handed to or received from another person;
  - never pointing rifles at people;
  - inserting safety rods into the barrels of rifles when not in use on the range;
  - never horseplaying on a range;
  - always pointing rifles down range; and
  - following the Range Safety Officer’s (RSO) directions and orders at all times.

Review range commands with an explanation and demonstration for each command.

All loading/firing in this TP is to be simulated.

- Review commands used on an air rifle range (as illustrated in Figure 6-1-1).

Command	Action To Be Taken
Cover off your firing point	Stand up, move behind the firing point and await further commands.
Place your equipment down and stand back	Lay the equipment down on the mat and stand back when finished.
Adopt the prone position	Adopt the prone position, pick up the rifle, ready the equipment and put on hearing and eye protection.
Type of firing (GRIT)	GRIT is the acronym for: • Group (relay); • Range (distance); • Indication (number of rounds); and • Type (grouping, scored).
Relay, load	1. Pick up and hold the rifle with the dominant hand. 2. Ensure the safety catch is in the “ON” position. 3. Pump the rifle, observing a three second pause. 4. Load a pellet (flat end forward). 5. Close the bolt.
Relay, fire	1. Place the safety catch in the “OFF” position. 2. Aim the rifle at the target. 3. Squeeze the trigger. 4. Open the bolt. 5. Repeat the following sequence for each shot: a. Pump the rifle, observing a three second pause. b. Load a pellet (flat end forward). c. Close the bolt. d. Aim the rifle at the target. e. Squeeze the trigger. f. Open the bolt. 6. Place the safety in the “ON” position. 7. Partially open the pump lever. 8. Lay down the rifle.

D Cdts 3, 2006, Ottawa, ON: Department of National Defence

Figure 6-1-1 Air Rifle Range Commands

- Describe the layout of the air rifle range.

- Review hand-washing procedures on completion of firing. This is important because each time a person handles pellets, a small trace of lead is left on their hands. To decrease the risk of lead poisoning, it is important that all persons wash their hands thoroughly after handling pellets.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. What are two rules used on the range?

Q2. What is the action for the command “Cover off your firing point”?

Q3. What does the acronym GRIT stand for?

ANTICIPATED ANSWERS

A1. General rules observed on a range:

- Rifles must be proved safe prior to being picked up, handed to or received from another person.
- Never point rifles at people.
- Insert safety rods into the barrels of rifles when not in use on the range.
- Never horseplay on a range.
- Always point rifles down range.
- Obey the Range Safety Officer’s (RSO) directions and orders at all times.

A2. The action for the command is stand up, move behind the firing point and await further commands.

A3. GRIT stands for:

- Group (relay);
- Range (distance);
- Indication (number of rounds); and
- Type (grouping, scored).

Teaching Point 2 — **Supervise the Cadets’ Participation in a Recreational Marksmanship Activity**

Time: 70 min — Method: Practical Activity

ACTIVITY

OBJECTIVE

The objective of this activity is to provide cadets with the opportunity to participate in a recreational marksmanship activity.

RESOURCES

- Cadet air rifle (one per firing lane).

- Cadet air rifle safety rod (one per firing lane).
- Safety glasses/goggles.
- Approved air rifle pellets (.177).
- Target frame.
- Pen/pencil.
- Shooting mat.
- Flags (red and green).

Additional resources required for specific marksmanship activities can be found in the annexes.

ACTIVITY LAYOUT

Construct a range IAW A-CR-CCP-177/PT-001.

ACTIVITY INSTRUCTIONS

- Divide the cadets into relays according to the number of firing lanes.
- Conduct recreational marksmanship activities, choosing from the following categories:
  - classification (see Annex A);
  - fun activities (see Annexes B to E);
  - timed activities (see Annexes F to H); or
  - competitive team/individual activities (see Annexes I and J).

All marksmanship activities in this EO will be conducted in the prone position.

SAFETY

Range activities will be conducted IAW A-CR-CCP-177/PT-001.

CONFIRMATION OF TEACHING POINT 2

The cadets' participation in the activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in the activities in TP2 will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Marksmanship is a fun and exciting activity that requires personal discipline and teamwork skills. This activity has also developed into highly competitive levels at the provincial, regional, and national levels.

INSTRUCTOR NOTES/REMARKS

Hand-washing stations must be available for clean-up after the activity is completed.

REFERENCES

A0-027 A-CR-CCP-177/PT-001 D Cdts 3. (2001). *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual.* Ottawa, ON: Department of National Defence.

A0-041 CATO 14-41 D Cdts 4. (2005). *Marksmanship Classification.* Ottawa ON: Department of National Defence.

C0-103 Free Fever. (ND). *Free Space Shuttle Clip Art.* Retrieved 21 February 2007, from http://www.freefever.com/freeclipart/spaceshuttle.html.

C0-109 Eight Planets. (ND). *Moon.* Retrieved 21 February 2007, from http://luna.eightplanets.net/.

C0-110 H2O University. (ND). *Moon*. Retrieved 21 February 2007, from http://www.h2ouniversity.org/html/K2_facts_earth.html.

COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 2

EO C206.01 – PRACTICE HOLDING TECHNIQUES

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

For comfort during this class, it is recommended that cadets be dressed in PT gear.

Ensure all cadet air rifle slings are properly assembled (except one for demonstration).

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

Demonstration was chosen for TP1 and TP2 as it allows the instructor to explain and demonstrate the holding techniques that the cadet is expected to acquire.

Performance was chosen for TP3 as it provides an opportunity for the cadets to practice holding techniques under supervision.

INTRODUCTION

REVIEW

The review for this lesson is from EO M106.03 (Apply Basic Marksmanship Techniques), specifically adopting the prone position.

Have an assistant instructor lie down on a mat and assume the prone position without the cadet air rifle sling. Allow the cadets two minutes to identify and/or correct aspects of the position.

OBJECTIVES

By the end of this lesson the cadet shall have practiced holding techniques.

IMPORTANCE

It is important for cadets to practice holding techniques using the cadet air rifle sling, as it will enhance the cadets' marksmanship skills through added stability of the firing position.

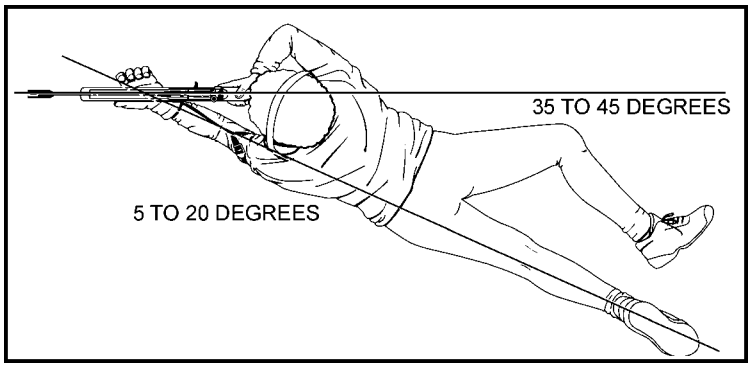
Teaching Point 1 **Explain and Demonstrate Adopting the Prone Position**

Time: 5 min Method: Demonstration

An assistant instructor may be used to demonstrate as the instructor explains the prone position.

THE PRONE POSITION

The first principle of marksmanship is to find a comfortable firing position. The prone position is the most stable firing position in which the cadet air rifle is supported by the body structure. The prone position requires little movement and muscular tension while holding the cadet air rifle, so that:



A-CR-CCP-177/PT-001 (p. 1-5-3)

Figure 6-2-1 Prone Position

- the bodyweight is equally distributed;
- the position is consistent throughout the relay;
- the body forms a 5 to 20 degree angle to the line of sight with the target;
- the body and spine are straight;
- the left leg is parallel with the spine;
- the right foot is straight out or turned to the right;
- the left foot is straight behind on the toe or pointed to the right; and
- the right knee is brought up so the thigh forms a 30 to 45 degree angle with the left leg.

By bending the right knee, stability is improved. This causes the body to roll slightly, raising the chest off the ground to improve breathing and to minimize body movement caused by a normal heartbeat.

CONFIRMATION OF TEACHING POINT 1

The cadets' participation in the holding technique activity in TP3 will serve as the confirmation of this TP.

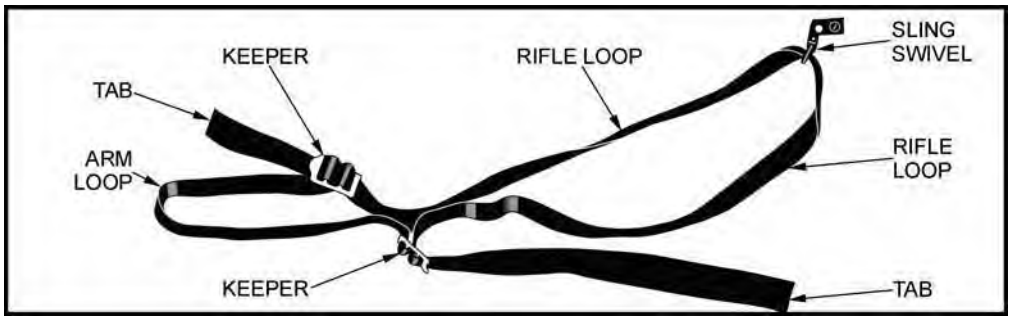
Teaching Point 2 **Explain and Demonstrate Holding Techniques Using the Cadet Air Rifle Sling**

Time: 10 min Method: Demonstration

The cadet air rifle sling helps the cadet maintain a comfortable and stable position, improving the ability to hold the cadet air rifle. It also allows the right hand to be free to load the air rifle while the rifle remains in position.

Arrange the cadets so they can all hear the explanation and see the demonstration.

ASSEMBLING THE SLING



A-CR-CCP-121/PT-001, Royal Canadian Army Cadet Reference Book (p. 6-17)

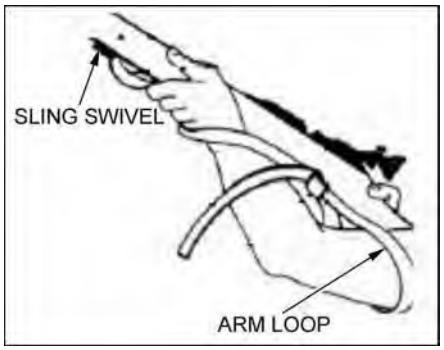
Figure 6-2-2 Cadet Air Rifle Sling

The cadet air rifle sling is assembled in the following sequence:

1. Hold the sling parallel to the ground with the short section in the left hand, ensuring the rounded tip of the keeper is pointing to the left.
2. Take the tab of the short section, loop it through the middle slot of the keeper and then back down through the front slot nearest to the rounded tip. The short section will now form the arm loop.
3. Turn the sling over and slide the sling swivel onto the long section. Ensure the sling swivel hangs downwards, as it will later attach to the rifle.
4. Loop the tab of the long section up through the middle slot of the keeper and then back through the rear slot nearest to the rounded tip. The long section will now form the rifle loop.

An assistant instructor can be used to demonstrate as the instructor explains wearing, adjusting and attaching the cadet air rifle sling.

POSITIONING THE SLING ON THE ARM

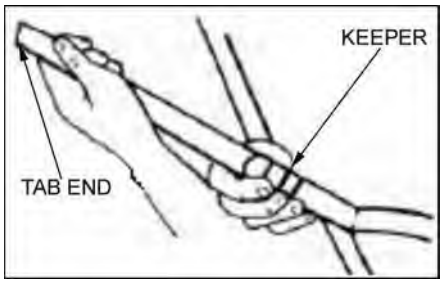


Daisy Outdoor Products, Operational Manual – AVANTI Legend EX Model 853C, Daisy Outdoor Products (p. 7)

Figure 6-2-3 Positioning Sling

The sling arm loop should be positioned on the upper part of the arm, above the bicep muscle near the shoulder. The sling can be held in place by the rubber pad on a shooting jacket. When a shooting jacket is not worn, the sling can be kept in place using a safety pin. This will prevent the sling from slipping down the arm while in the prone position.

ADJUSTING THE ARM LOOP

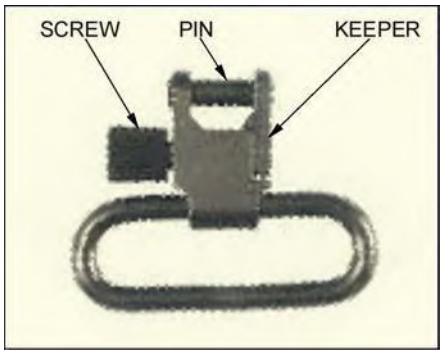


Daisy Outdoor Products, Operational Manual – AVANTI Legend EX Model 853C, Daisy Outdoor Products (p. 8)

Figure 6-2-4 Adjusting Arm Loop

To adjust the arm loop, pull the tab away from the keeper. If the sling is too loose, it will not fully support the cadet air rifle and it will have to be kept in place using muscles. If the sling is too tight, it will restrict the blood flow to the arm and can cause discomfort, numbness, or a more pronounced feel of the body's pulse. Therefore, the sling must be comfortable without pinching the arm, while providing maximum support of the cadet air rifle.

ATTACHING THE SLING TO THE CADET AIR RIFLE



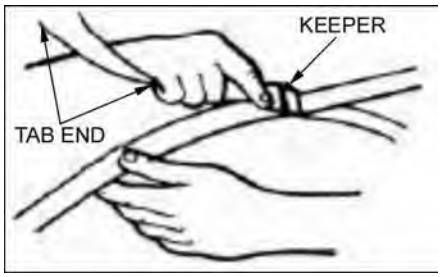
D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 6-2-5 Sling Swivel

To attach the sling to the cadet air rifle, simply:

1. open the keeper on the sling swivel by pressing on the screw;
2. insert the swivel pin into the hole of the sling swivel on the fore end of the rifle; and
3. screw the keeper over the pin to lock the swivel in place.

ADJUSTING THE RIFLE LOOP



Daisy Outdoor Products, Operational Manual – AVANTI Legend EX Model 853C, Daisy Outdoor Products (p. 8)

Figure 6-2-6 Adjusting Rifle Loop

To adjust the rifle loop, pull the tab away from the keeper. The tension of the sling should allow the forearm to be in its proper position. If the sling is too loose, it will not provide maximum support of the cadet air rifle. If the sling is too tight, it could cause discomfort and affect the cadet's position.

CONFIRMATION OF TEACHING POINT 2

The cadets' participation in the holding technique activity in TP3 will serve as the confirmation of this TP.

Teaching Point 3 **Conduct a Holding Technique Activity**

Time: 10 min Method: Performance

ACTIVITY

OBJECTIVE

The objective of this activity is to have cadets adopt the prone position, positioning the sling on the arm, adjusting the arm loop, attaching the sling to the air rifle, and adjusting the rifle loop.

RESOURCES

- Cadet air rifle (one per firing lane).
- Cadet air rifle sling (one per air rifle).
- Shooting mat (one per firing lane).

ACTIVITY LAYOUT

An air rifle range constructed IAW A-CR-CCP-177/PT-001, Chapter 1, Section 8. If a range is not available, set up the training area to have a defined mock firing point. The assistant instructor shall be used to confirm the cadet's position.

ACTIVITY INSTRUCTIONS

1. Divide cadets into equal groups according to the number of cadet air rifles.
2. Have each group of cadets take turns lying down on mats and assume the prone position.
3. With assistance, allow the cadets to practice the prone position as taught.
4. Have cadets position the sling on the arm and adjust the arm loop.
5. Have cadets attach the sling to the air rifle and put the cadet air rifle into the shoulder.
6. Have cadets adjust the rifle loop of the sling.
7. Have cadets adjust their prone position.
8. Inspect each cadet for proper placement of the sling on the arm and tension of the sling loops.
9. Repeat steps as required, within the allotted time.

SAFETY

Ensure that the cadet air rifles are pointed in a safe direction at all times. Cadets will treat air rifles as though they are loaded.

CONFIRMATION OF TEACHING POINT 3

The cadets' participation in the holding technique activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in the holding technique activity in TP3 will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

The prone position and the cadet air rifle sling are essential to improving marksmanship techniques. With practice using the sling in the prone position, cadets can improve their technique and their marksmanship score.

INSTRUCTOR NOTES/REMARKS

Instructions may be modified for left-handed cadets (e.g., switching left hand/foot when instructions call for right hand/foot).

This EO is intended to enhance and further develop techniques taught in EO M106.03 (Apply Basic Marksmanship Techniques).

REFERENCES

A0-027 A-CR-CCP-177/PT-001 D Cdts 3. (2001). *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual.* Ottawa, ON: Department of National Defence.

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COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 3

EO C206.02 – PRACTICE AIMING TECHNIQUES

Total Time: 60 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

Demonstration and performance was chosen for TP1 and TP3 as it allows the instructor to explain and demonstrate aiming techniques while providing an opportunity for the cadets to practice these skills under supervision.

An interactive lecture was chosen for TP2 to introduce the aspects of aiming.

INTRODUCTION

REVIEW

Review the following points from EO M106.03 (Apply Basic Marksmanship Techniques).

- The aiming process is achieved by adopting a comfortable prone position and ensuring body alignment with the target.
- Sight alignment is the alignment of the eye, the rear sight, and the front sight.
- The sight picture is obtained by keeping the bull's-eye centred with the circles of the front sight and rear sight.

OBJECTIVES

By the end of this lesson the cadet shall have practiced aiming techniques.

IMPORTANCE

It is important for cadets to practice aiming techniques while wearing the cadet air rifle sling as it will enhance the cadets' marksmanship skills through added stability of the firing position.

Teaching Point 1 **Explain, Demonstrate and Have Cadets Practice Proper Eye Usage**

Time: 15 min Method: Demonstration and Performance

Before completing a manual task, it must first be determined which hand or foot to use. Is one left or right-handed? The same is true for sight; it must first be determined the proper eye to use when aiming the cadet air rifle. To do this cadets' must determine their master eye, learn to fire with both eyes open and avoid fixed vision.

DETERMINING THE MASTER EYE

Everyone has a master eye, which is the brain's main source for the visual image of what we see. The non-master eye is used by the brain for depth perception or sense of direction. The master eye is the eye to be used when aiming the cadet air rifle.

The master eye is usually on the same side of the body as the dominate hand. If your master eye is opposite from your dominate hand, you should try firing on the side of your master eye.

ACTIVITY

OBJECTIVE

The objective of this activity is to have the cadets determine their master eye.

RESOURCES

N/A.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

A-CR-CCP-177/PT-001 (p. 1-5-2)

Figure 6-3-1 Determining the Master Eye

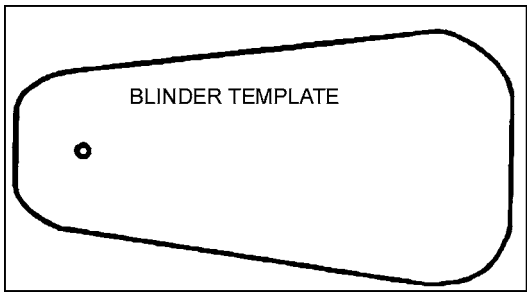
1. Have cadets stand and face away from each other.
2. Select a small object preferably at least 5 m away.

3. Face the object and extend both arms in front of the face.
4. Form a small triangle opening around the object with both hands.
5. Look through the opening at the object, and draw the hands back towards the face.
6. Ensure the object remains centred through the opening of the hands.
7. Cadets should be looking at the object through the opening with one single eye (the stronger of the two). This is their master eye.

SAFETY

N/A.

FIRING WITH BOTH EYES OPEN



A-CR-CCP-177/PT-001 (p. 1-5-2)

Figure 6-3-2 Blinder Template

The human eyes are always working together. If one eye is closed, the opposite eye will strain and affect focusing of the open eye.

Some cadets will have difficulty focusing, so a blinder should be used in front of the non-aiming eye to help prevent squinting and fatigue. The blinder allows the cadets to see a focused sight picture while having both eyes open.

A good blinder should be translucent (plastic or paper) so that images are blocked, but light can still penetrate it. It should be easily attachable to the rear sight or to the cadet's glasses.

Have cadets look at a spot on the wall with both eyes open, then have cadets hold a blank piece of white paper in front of their non-aiming eye. The object should come into a clear focus.

AVOIDING FIXED VISION

When anyone's vision is fixed on one object for more than a few seconds, such as a target bulls-eye, the image can be burned in their mind and a "ghost" image can be seen when glancing to the side. It is important for cadets to avoid this fixed vision during marksmanship training, as it may result in a loss of visual perception and can greatly hinder performance. To avoid fixed vision, cadets need only to blink or slightly shift their vision every four to five seconds.

CONFIRMATION OF TEACHING POINT 1

The cadets' participation in determining the master eye will serve as the confirmation of this TP.

Teaching Point 2 **Identify and Explain Aspects of Aiming**

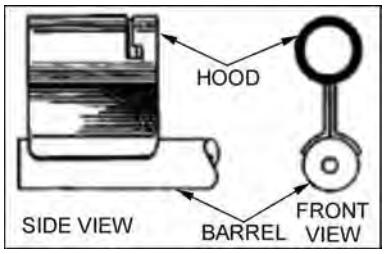
Time: 25 min Method: Interactive Lecture

Before cadets can aim the cadet air rifle with accuracy, they must first identify aspects of aiming. To do this cadets must understand that the sight system of the cadet air rifle, natural head position, and eye relief all work together when aiming.

SIGHT SYSTEM OF THE CADET AIR RIFLE

The sight system of the cadet air rifle is made up of two main components—the front sight and the rear sight.

Explain to the cadets that the front and rear sights of the cadet air rifle must be used together when acquiring a sight picture.

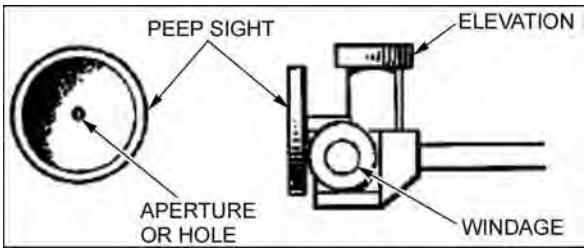


A-CR-CCP-177/PT-001 (p. 1-5-5)

Figure 6-3-3 Front Sight

Front Sight. The front sight of the cadet air rifle is made of a short tube, which is called a hood. The hood is designed to shield the front sight from overhead and side light. The most common front sights used for the cadet air rifle is the aperture or circle sight. The aperture is inserted in the hood through a slit on the top.

The adjusting of the sights on the cadet air rifle will be covered in Year Three. Instruct the cadets that they are not to make any adjustments to the sights.



A-CR-CCP-177/PT-001 (p. 1-5-5)

Figure 6-3-4 Rear Sight

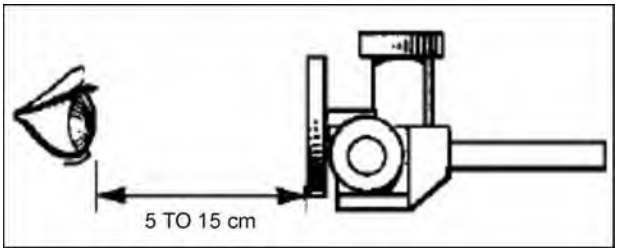
Rear Sight. The adjustable rear sight of the cadet air rifle has three main parts; peep sight, elevation knob, and windage knob.

- **Peep Sight.** The peep sight is the penny-sized dish-shaped part at the rear of the sight. It has a small hole in the centre to look through.
- **Elevation Knob.** The elevation knob is on the top of the sight and moves the point of impact on the target up or down.
- **Windage Knob.** The windage knob is on the side of the sight and moves the point of impact on the target left or right.

NATURAL HEAD POSITION

The head should be kept as close as possible to a natural position, allowing the eyes to look straight forward from the eye socket. It is perfectly normal to tilt the head forward slightly, but cadets must resist allowing it to tilt to the left or right as this may affect their sense of balance.

EYE RELIEF



A-CR-CCP-177/PT-001 (p. 1-5-6)

Figure 6-3-5 Eye Relief

Eye relief is the distance between the eye and the peep sight on the rear sight. Depending on an individual's build and position, the distance is usually 5 to 15 cm. Eye relief should be comfortable, natural and allow the head to be as erect as possible during the firing process. It is important to maintain the same eye relief from shot to shot and to find an eye relief that allows a circle of light to be seen around the front sight while looking through the rear sight. If the eye relief is less than 5 cm, the line of white around the front sight becomes larger, making the sight picture more difficult to keep aligned.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. What are the two main components of the cadet air rifle sight system?

Q2. What are the three parts of the rear sight?

Q3. What is the usual distance for eye relief?

ANTICIPATED ANSWERS

A1. The front and rear sights.

A2. The peep sight, elevation knob and windage knob.

A3. 5 to 15 cm.

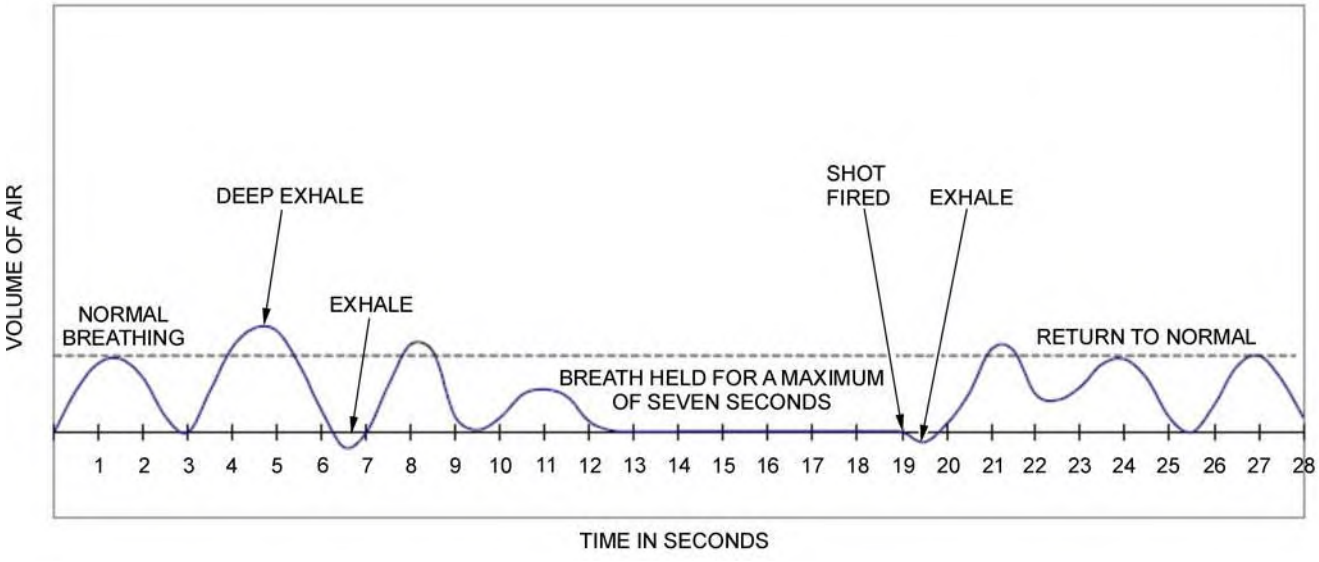
Teaching Point 3 **Explain, Demonstrate and Have Cadets Practice Marksmanship-related Breathing**

Time: 15 min Method: Demonstration and Performance

Breathing supplies the blood stream with oxygen and eliminates waste elements (such as carbon dioxide) from the blood. While breathing, the oxygen inhaled is used to supply muscles with energy, ensuring optimal potential of the muscles. Just like in sports, controlled breathing can affect marksmanship outcomes.

CONTROLLED BREATHING

Once a stable prone position is established, cadets must integrate the principles of controlled breathing. For maximum stability when firing, cadets will have to hold their breath for five to seven seconds. It is very important that they do not hold their breath for more than seven seconds, as tension will increase in the chest, muscles will lack oxygen and stability will be reduced. When the body lacks oxygen, muscles will quiver and eyesight will be negatively affected.



A-CR-CCP-177/PT-001 (p. 1-5-9)

Figure 6-3-6 Breathing Cycle

ACHIEVING A CONTROLLED BREATHING SEQUENCE

During the breathing sequence, cadets should confirm that the cadet air rifle is moving up and down and it is not canted. Also, when breathing in and out, cadets can visually confirm that they are aiming on the proper diagram.

ACTIVITY

Time: 10 min

OBJECTIVE

The objective of this activity is to have cadets practice a controlled breathing sequence.

RESOURCES

- Cadet air rifles (one per firing lane).
- Cadet air rifle slings (one per air rifle).
- Cadet air rifle safety rods (one per air rifle).
- Suitable targets (one per firing lane).

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Divide the cadets into groups based on the number of air rifles available.
2. Have cadets adopt the prone position using the cadet air rifle sling.
3. Have the cadets relax and breathe normally.
4. Have the cadets obtain a sight picture.
5. Have the cadets inhale and exhale deeply.
6. Have the cadets inhale deeply and exhale normally.
7. Have the cadets relax the chest muscles, hold a breath for 5 to 7 seconds and squeeze the trigger.
8. Have the cadets exhale completely and resume normal breathing.

It is important for cadets not to fire if they feel they want to take another breath. Their shot will not be perfect and their end result will be affected. Relaxed breathing decreases “vibrations” caused by tension.

SAFETY

Ensure control at all times. Cadets will treat air rifles as though they are loaded.

CONFIRMATION OF TEACHING POINT 3

The cadets' participation in the controlled breathing activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

QUESTIONS

Q1. What is the master eye used for in marksmanship?

Q2. How much eye relief is between the eye and the rear sight?

Q3. During a controlled breathing sequence, what direction should the cadet air rifle move?

ANTICIPATED ANSWERS

A1. To aim the cadet air rifle.

A2. 5 to 15 cm.

A3. Up and down.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Breathing is essential to marksmanship as it supplies the muscles with oxygen and helps the cadet to maintain the prone position. With practice using the controlled breathing sequence, cadets can improve their aiming of the cadet air rifle and marksmanship scores can improve.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

A0-027 A-CR-CCP-177/PT-001 D Cdts 3. (2001). *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual.* Ottawa, ON: Department of National Defence.

COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 4

EO C206.03 – PRACTICE FIRING TECHNIQUES

Total Time:	30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

For comfort during this class, it is recommended that cadets be dressed in PT gear.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

Demonstration and performance was chosen for TP1 as it allows the instructor to explain and demonstrate firing techniques while providing an opportunity for the cadets to practice these skills under supervision.

Demonstration was chosen for TP2 as it allows the instructor to explain and demonstrate trigger control.

An interactive lecture was chosen for TP3 to present basic material on follow-through.

INTRODUCTION

REVIEW

The review for this lesson is from EO M106.03 (Apply Basic Marksmanship Techniques). The sequence required to fire the cadet air rifle when the RSO gives the command “Fire”, will include:

1. place safety catch in the OFF position;
2. aim the cadet air rifle at the target;
3. squeeze the trigger;
4. open the bolt, pump the rifle, reload, aim and fire;
5. repeat the last step until firing is complete;
6. upon completion, place the safety catch in the ON position and partially open the pump lever; and

7. lay down the cadet air rifle.

OBJECTIVES

By the end of this lesson the cadet shall have practiced firing techniques.

IMPORTANCE

It is important for cadets to practice natural alignment, trigger control and follow-through when firing the cadet air rifle, as it helps cadets achieve a stable prone position and sight picture.

Teaching Point 1 **Explain, Demonstrate and Have the Cadets Practice Natural Alignment**

Time: 15 min Method: Demonstration and Performance

NATURAL ALIGNMENT

With the use of an assistant instructor, demonstrate and explain natural alignment as listed below, prior to cadets practicing this procedure.

Natural alignment describes the direction that the cadet air rifle is aimed when the marksman is in the prone position with the cadet air rifle at the ready. In a comfortable position, the cadet air rifle should not be forced to point at the target. Even with a perfect prone position and sight alignment, forcing the air rifle can cause muscle tension and will affect the accuracy of each shot.

Natural alignment is obtained by:

1. adopting a comfortable prone position;
2. acquiring a sight picture;
3. closing both eyes;
4. taking several normal breaths to relax the muscles;
5. looking through sights when comfortable;
6. adjusting body position until a proper sight picture is achieved; and
7. proceeding with firing.

ACTIVITY

Time: 10 min

OBJECTIVE

The objective of this activity is to have cadets practice natural alignment.

RESOURCES

- Cadet air rifle (one per firing lane).

- Cadet air rifle safety rod (one per rifle).
- Shooting mat (one per firing lane).
- Suitable target (one per firing lane).

ACTIVITY LAYOUT

Construct an air rifle range IAW A-CR-CCP-177/PT-001, Chapter 1, Section 8. If a range is not available, set up the training area to have a defined mock firing point. Ensure that the air rifles are pointed in a safe direction at all times.

ACTIVITY INSTRUCTIONS

1. Divide cadets into equal groups according to the number of cadet air rifles available.
2. Have cadets lie on the mats and assume the prone position using the cadet air rifle and sling.
3. Cadets will acquire a sight picture by aligning the eye, rear sight, front sight, and the target bull's eye.
4. When cadets have a sight picture, have them close their eyes.
5. Have cadets relax by taking 3 to 4 normal breaths.
6. After approximately 10 seconds, have cadets open their eyes and inspect their sight picture.
7. Cadets shall adjust their bodies to re-acquire an accurate sight picture.
8. Repeat steps 4 to 9, as required, within the allotted time.

SAFETY

Ensure control at all times. Cadets will treat cadet air rifles as though they are loaded.

CONFIRMATION OF TEACHING POINT 1

The cadets' participation in the natural alignment activity will serve as the confirmation of this TP.

Teaching Point 2 **Demonstrate and Explain Trigger Control**

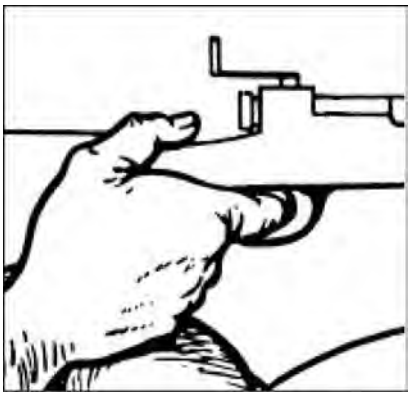
Time: 5 min Method: Demonstration

TRIGGER CONTROL

With the use of an assistant instructor, allow the cadets to observe the demonstration and hear the explanation for each aspect of trigger control as listed below.

Trigger control is the handling of the trigger in such a way that there is no disturbance. It must be constant, controlled, slow and deliberate.

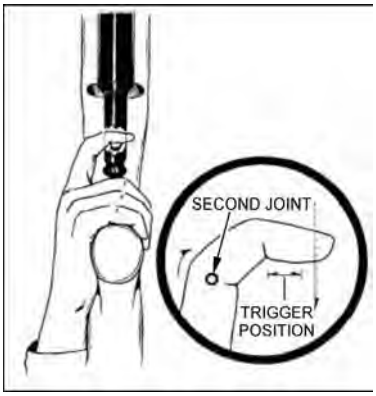
Position of the Hand on the Rifle. Cadets should have a relatively firm grip so the three lower fingers wrap around the small of the butt. The thumb is pointed forward in a relaxed position behind the rear sight along the rifle stock, or wrapped around the small of the butt.



D Cdts 5, Royal Canadian Army Cadets Visual Aids Rifle Shooting Figures, Department of National Defence (p. 11)

Figure 6-4-1 Position of the Hand on the Rifle

Trigger Finger Position. The index finger is placed on the trigger halfway between the tip of the finger and the first joint. The index finger never touches the stock of the rifle and must be vertically centred on the trigger.



A-CR-CCP-177/PT-001 (p. 1-5-9)

Figure 6-4-2 Trigger Finger Position

Squeezing the Trigger. Squeezing the trigger is simply applying pressure to the trigger, by bending the second joint of the index finger straight to the rear. While the breath is being held, apply constant pressure and slowly squeeze the trigger. Trigger pressure is to be applied only when ready to fire.

CONFIRMATION OF TEACHING POINT 2

The cadets' observation of the trigger control demonstration will serve as the confirmation of this TP.

Teaching Point 3 **Define Follow-through**

Time: 5 min Method: Interactive Lecture

FOLLOW-THROUGH

Since no pellets will be fired, position the cadets so they may observe an assistant instructor perform a simulation and hear the explanation of follow-through.

Follow-through is defined as the act of remaining in a stable prone position for two seconds and reacquiring the sight picture after firing the air rifle. Follow-through is critical to ensuring there is no movement as the cadet air rifle is being fired. If the cadet moves the cadet air rifle during firing, the pellet will not hit the target in the spot that it was aimed. Ensuring proper follow-through allows cadets to improve their skills, and their score.

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

Q1. How long must a stable position be held after firing the cadet air rifle?

Q2. What will happen to a pellet during follow-through?

Q3. If the rifle moves before the pellet leaves the muzzle, how will it affect the target?

ANTICIPATED ANSWERS

A1. A stable position must be held for two seconds.

A2. It will leave the muzzle.

A3. The pellet will not hit the target in the spot that it was aimed.

END OF LESSON CONFIRMATION

The cadets' participation in marksmanship activities using natural alignment, trigger control and follow-through, will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Natural alignment, trigger control and follow-through are essential to developing marksmanship skills. They help cadets maintain a stable position and sight picture when firing the cadet air rifle. With practice using these firing techniques, cadets can improve their skills and their score.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

A0-027 A-CR-CCP-177/PT-001 D Cdts 3. (2001). *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual.* Ottawa, ON: Department of National Defence.

CLASSIFICATION ACTIVITY

CLASSIFICATION ACTIVITY

Objective: To provide cadets the opportunity to obtain marksmanship classifications.

Scoring: There are four classification levels that must meet the following standards:

1. Marksman: Two five-round groupings within a circle of 3 cm in diameter.
2. First Class Marksman: Two five-round groupings within a circle of 2.5 cm in diameter.
3. Expert Marksman: Two five-round groupings within a circle of 2 cm in diameter.
4. Distinguished Marksman: Two five-round groupings within a circle of 1.5 cm in diameter.

Equipment Required:

Mandatory:

- CCT200GRTD Canadian Cadet Movement Air Rifle Grouping Target (one per cadet);
- Air Rifle Grouping Template from A-CR-CCP-177/PT-001 (p. B1-1); and
- A stopwatch.

Optional aids to firing are limited to the following:

- Cadet air rifle sling;
- Marksmanship jacket;
- Shooting glove; or
- Hat.

Activity Guidelines:

1. Distribute an Air Rifle Grouping Target to each cadet.
2. Have cadets write their name and rank on the target and attach it to the target frame.
3. Cadets will fire in relays following the commands given by the RSO.
4. Cadets will fire five pellets into each circle on the target.
5. Give cadets a maximum of 15 minutes to fire.
6. Have cadets retrieve their targets.
7. Score the targets using the Air Rifle Grouping Template.

The following is prohibited:

- Alterations made to the rifles.
- A pellet loading clip.
- Supports used as a rest for the rifle or the forearm.
- A spotting scope.
- Use of sights not provided with the cadet air rifle.
- Coaching.

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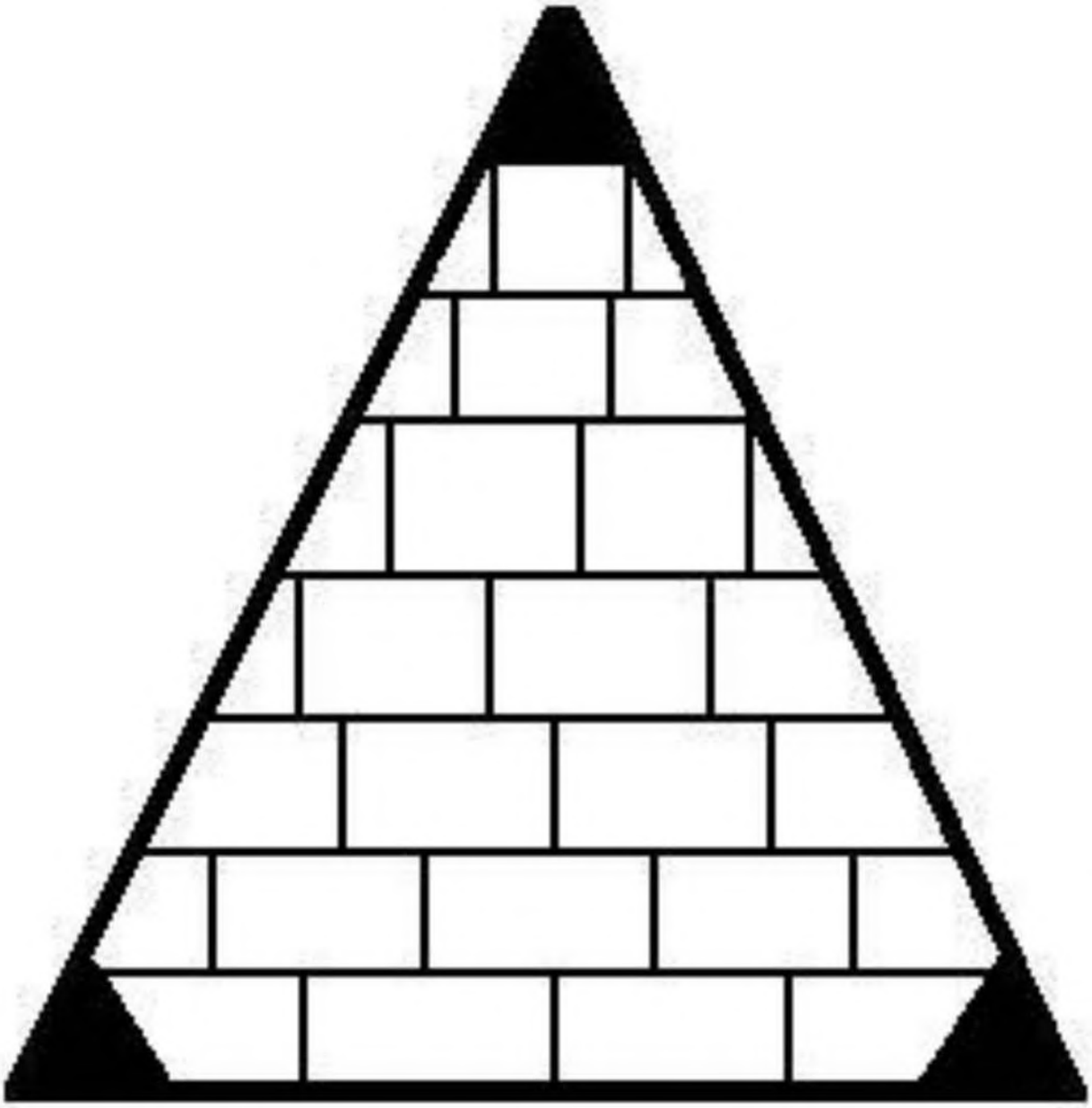
FUN ACTIVITY

PYRAMID
Objective: To fire pellets into each point on the pyramid.
Scoring: One point is awarded for each point on the pyramid that is hit by a pellet.
Equipment Required: Mandatory: Pyramid Target (one per cadet). Optional aids to firing are limited to the following: • Cadet air rifle sling; • Marksmanship jacket; • Shooting glove; or • Hat.
Activity Guidelines: 1. Distribute one Pyramid Target to each cadet. 2. Have cadets write their name and rank on the target and attach it to the target frame. 3. Cadets will fire in relays following the commands given by the RSO. 4. Cadets will be given three pellets to fire one pellet into each corner of the pyramid. 5. Give cadets three minutes to fire. 6. Score the targets awarding one point for each corner hit on the pyramid. 7. On completion of the activity or as time allows, place the targets out for the cadets to review. 8. Return the targets to cadets. The following is prohibited: • Alterations made to the rifles. • A pellet loading clip. • Supports used as a rest for the rifle or the forearm. • A spotting scope. • Use of sights not provided with the cadet air rifle.

PYRAMID TARGET



Name: _____ **Date:** _____

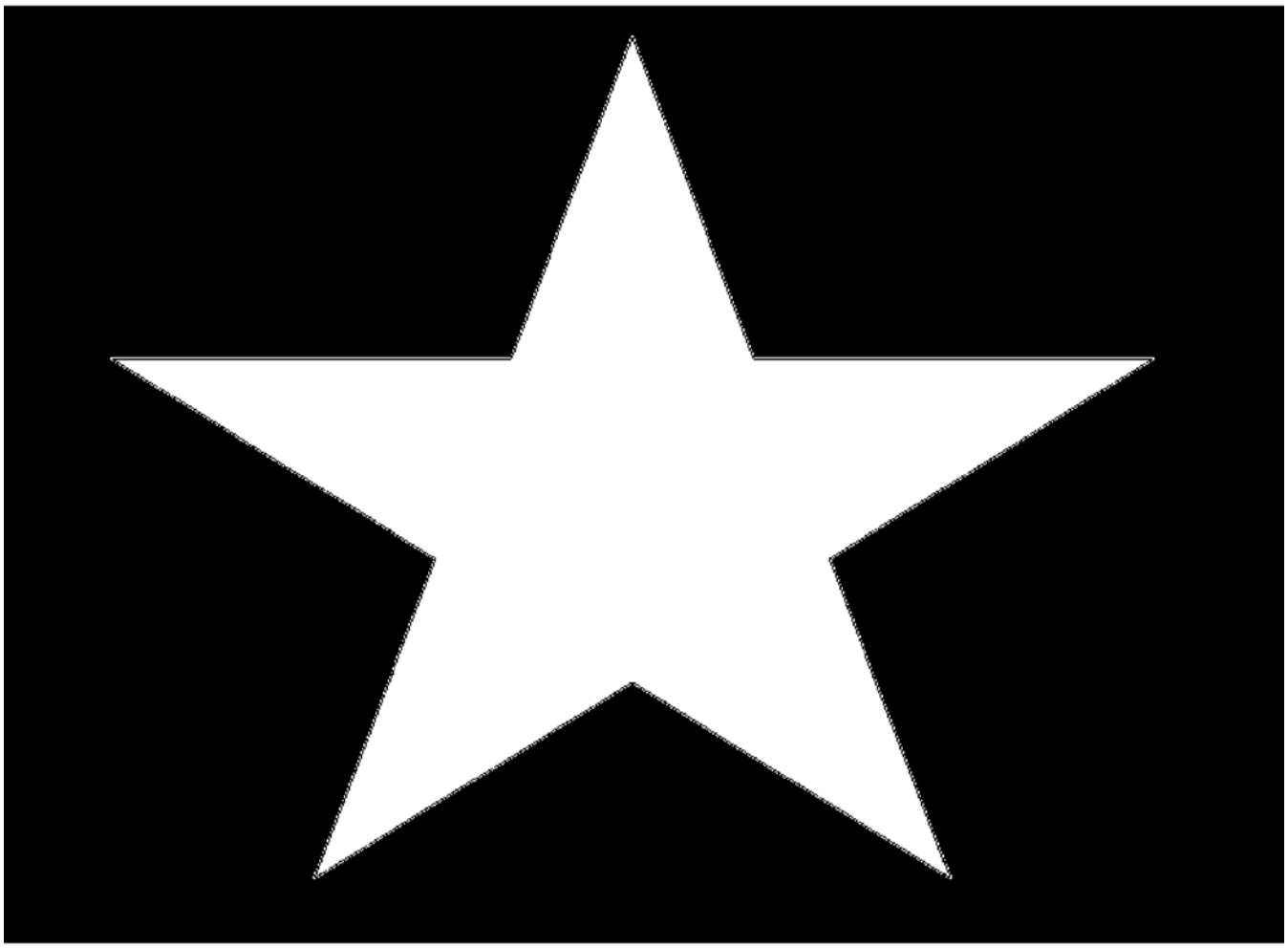
D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 6B-1 Pyramid Target

FUN ACTIVITY

SHOOTING STAR
Objective: To fire a pellet into each point on the star.
Scoring: One point is awarded for each point on the star that is hit by a pellet.
Equipment Required: Mandatory: Star Target (one per cadet). Optional aids to firing are limited to the following: • Cadet air rifle sling; • Marksmanship jacket; • Shooting glove; or • Hat.
Activity Guidelines: 1. Distribute one Star Target to each cadet. 2. Have cadets write their name and rank on the target and attach it to the target frame. 3. Cadets will fire in relays following the commands given by the RSO. 4. Cadets will be given five pellets to fire one pellet into each point on the star. 5. Give cadets five minutes to fire. 6. Score the targets awarding one point for a pellet hit within each point on the star. 7. On completion of the activity or as time allows, place the targets out for the cadets to review. 8. Return the targets to cadets. The following is prohibited: • Alterations made to the rifles. • A pellet loading clip. • Supports used as a rest for the rifle or the forearm. • A spotting scope. • Use of sights not provided with the cadet air rifle.

STAR TARGET



Name: _____ **Date:** _____

D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 6C-1 Star Target

FUN ACTIVITY

BEACH BALL
Objective: To fire ten pellets into the black circle on the beach ball.
Scoring: One point is awarded for each successful hit in the black circle.
Equipment Required: Mandatory: Beach Ball Target (one per cadet). Optional aids to firing are limited to the following: • Cadet air rifle sling; • Marksmanship jacket; • Shooting glove; or • Hat.
Activity Guidelines: 1. Distribute one Beach Ball Target to each cadet. 2. Have cadets write their name and rank on the target and attach it to the target frame. 3. Cadets will fire in relays following the commands given by the RSO. 4. Cadets will be given ten pellets to fire into the black circle on the beach ball. 5. Give cadets ten minutes to fire. 6. Score the targets awarding one point for each pellet hit within the black circle. 7. On completion of the activity or as time allows, place the targets out for the cadets to review. 8. Return the targets to cadets. The following is prohibited: • Alterations made to the rifles. • A pellet loading clip. • Supports used as a rest for the rifle or the forearm. • A spotting scope. • Use of sights not provided with the cadet air rifle.

BEACH BALL TARGET

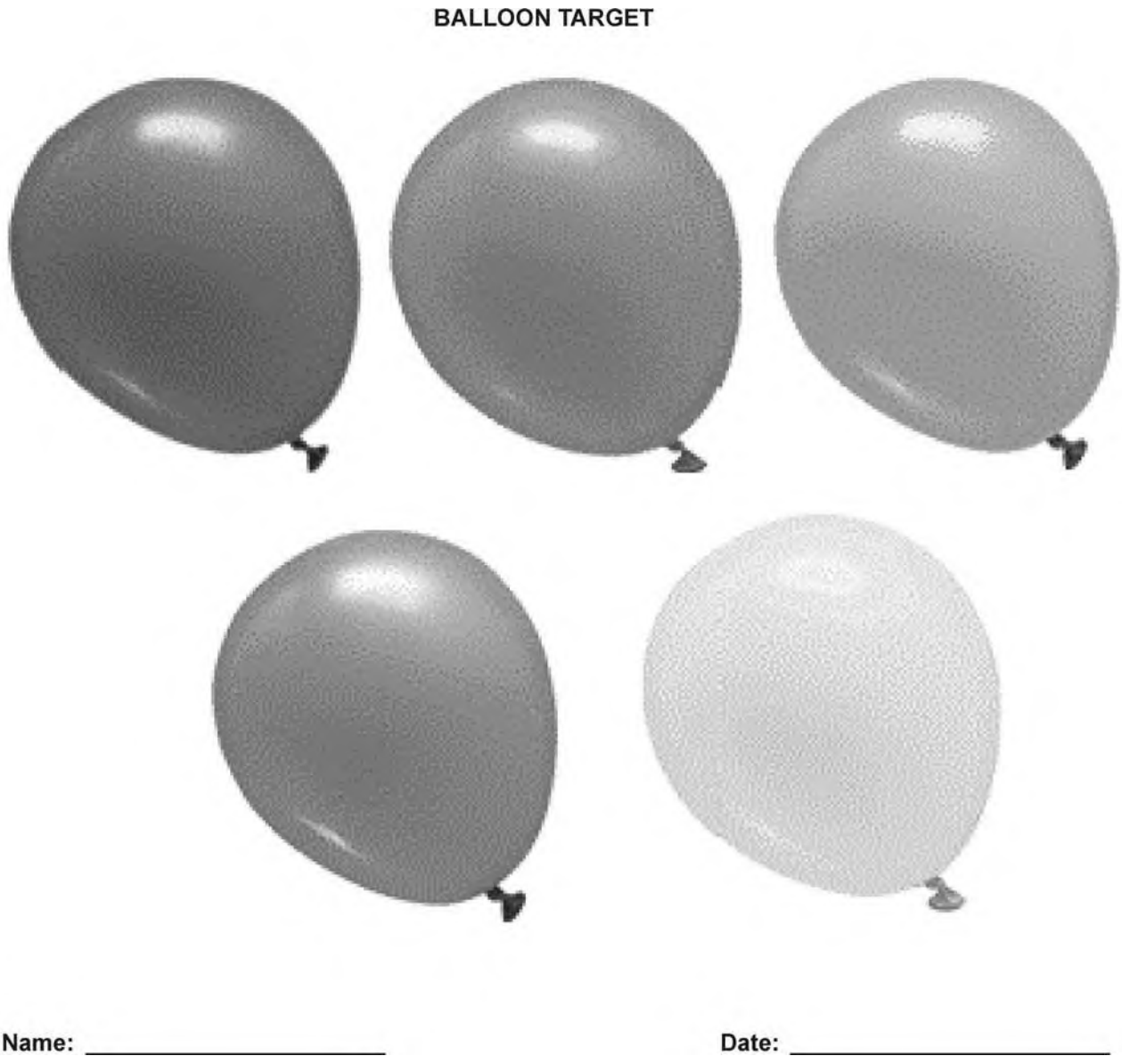
Name: _____ **Date:** _____

D Cdts 3, 2006, Ottawa, ON: Department of National Defence

Figure 6D-1 Beach Ball Target

FUN ACTIVITY

BALLOONS
Objective: To fire pellets into balloons on the target.
Scoring: One point is awarded for each balloon hit by a pellet.
Equipment Required: Mandatory: Balloon Target (one per cadet). Optional aids to firing are limited to the following: • Cadet air rifle sling; • Marksmanship jacket; • Shooting glove; or • Hat.
Activity Guidelines: 1. Distribute one Balloon Target to each cadet. 2. Have cadets write their name and rank on the target and attach it to the target frame. 3. Cadets will fire in relays following the commands given by the RSO. 4. Cadets will be given five pellets to fire one pellet into each point on the star. 5. Give cadets five minutes to fire. 6. Score the targets awarding one point for each balloon hit. 7. On completion of the activity or as time allows, place the targets out for the cadets to review. 8. Return the targets to cadets. The following is prohibited: • Alterations made to the rifles. • A pellet loading clip. • Supports used as a rest for the rifle or the forearm. • A spotting scope. • Use of sights not provided with the cadet air rifle.
Note: Actual balloons may be used in place of the paper targets.



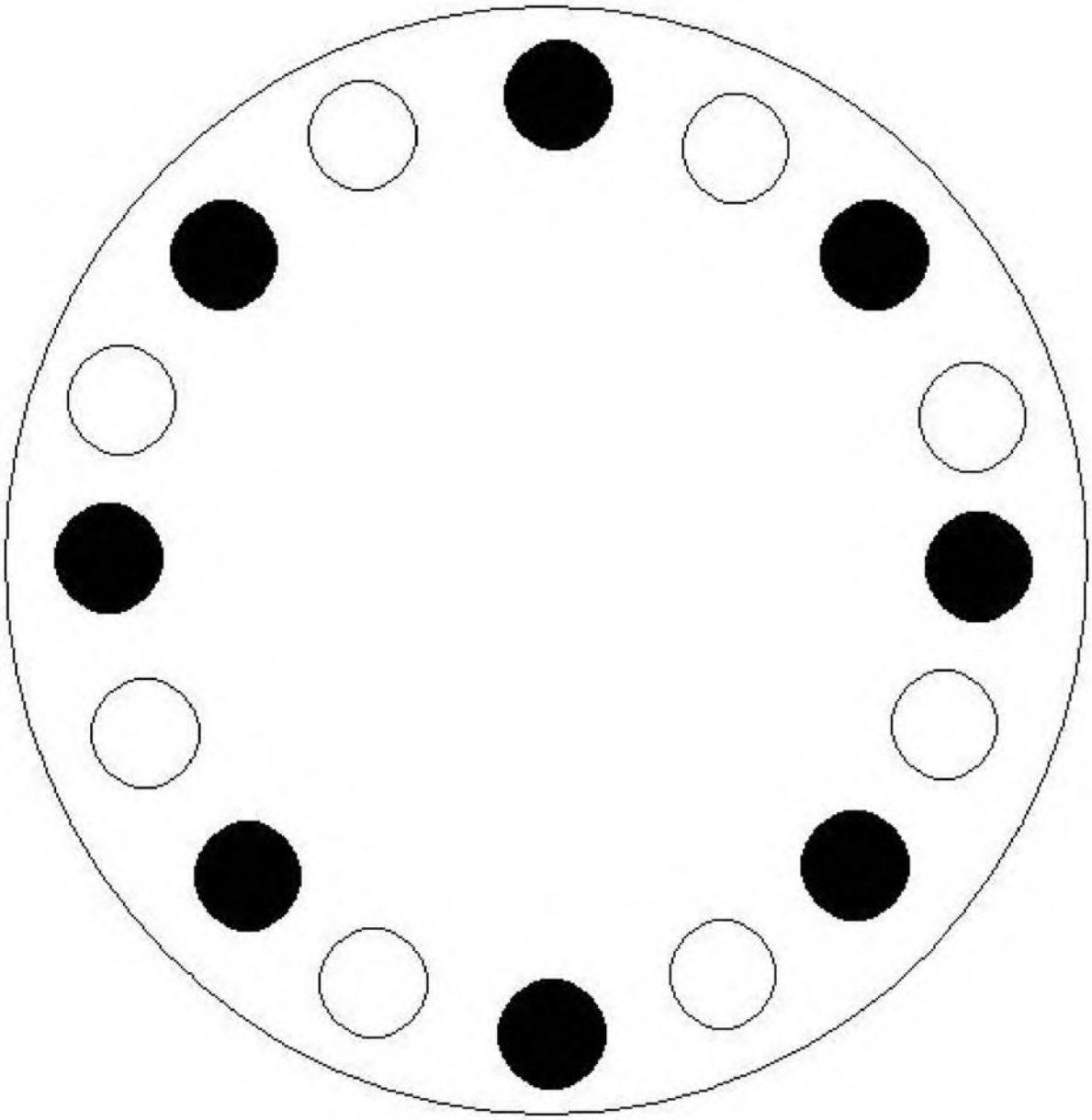
D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 6E-1 Balloon Target

TIMED ACTIVITY

CHASE THE DOTS
Objective: To fire pellets into the dots on the target in a clockwise direction, within a time limit.
Scoring: One point is awarded for each black dot that is hit by a pellet within the time allotted.
Equipment Required: Mandatory: • Chase the Dots Target (one per cadet); and • A stopwatch. Optional aids to firing are limited to the following: • Cadet air rifle sling; • Marksmanship jacket; • Shooting glove; or • Hat.
Activity Guidelines: 1. Distribute one Chase the Dots Target to each cadet. 2. Have cadets write their name and rank on the target and attach it to the target frame. 3. Cadets will fire in relays following the commands given by the RSO. 4. Cadets will be given sixteen pellets. 5. Cadets will fire one pellet into the black circles, in a clockwise direction, on the target. 6. A suggested time limit for this activity is eight minutes. 7. Have cadets retrieve their targets. 8. Score the targets based on the method described above. 9. On completion of the activity or as time allows, place the targets out for the cadets to review. 10. Return the targets to cadets. The following is prohibited: • Alterations made to the rifles. • A pellet loading clip. • Supports used as a rest for the rifle or the forearm. • A spotting scope. • Use of sights not provided with the cadet air rifle. • Coaching.
Note: To make this activity more difficult, shorten the time allowance.

CHASE THE DOTS TARGET



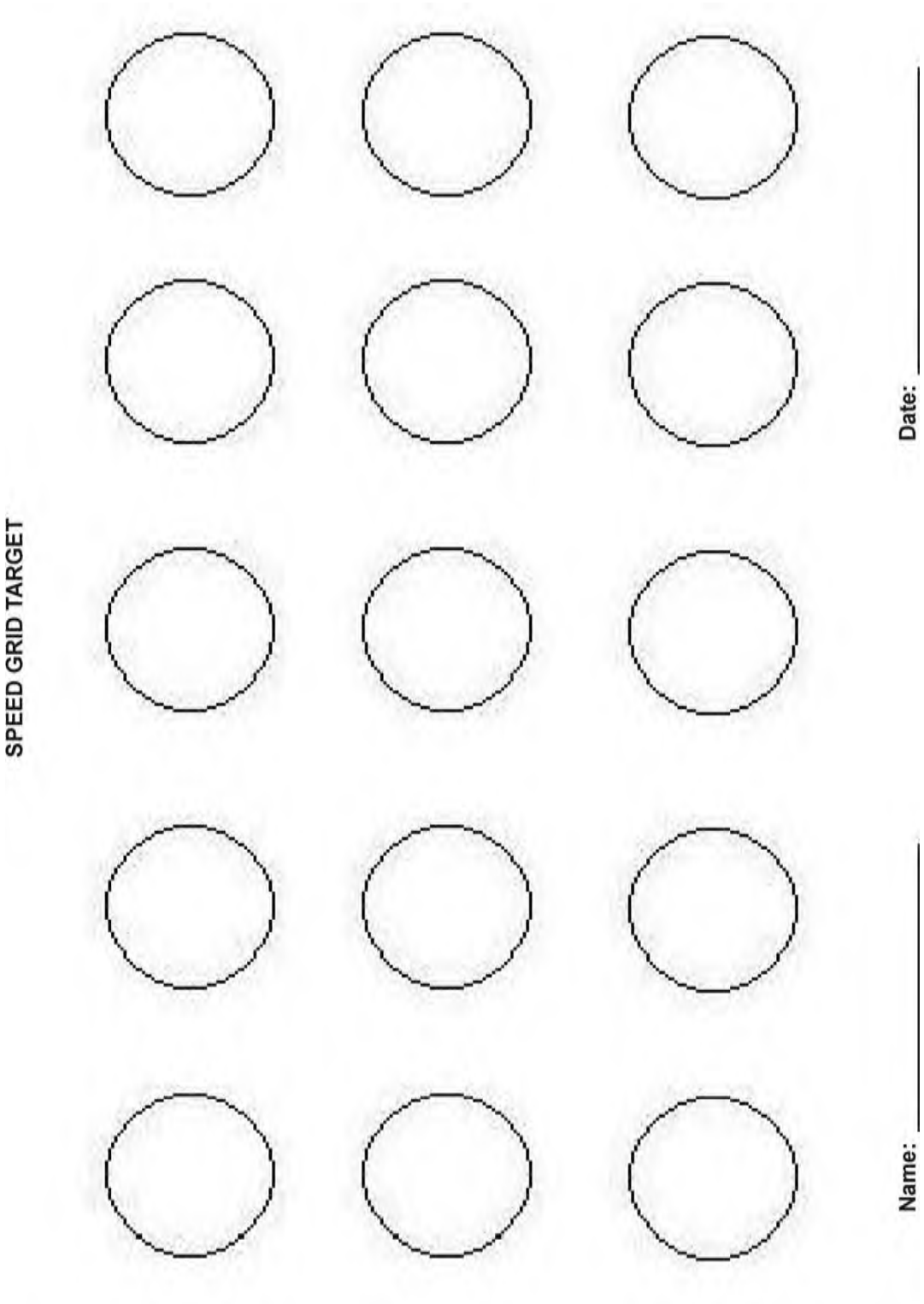
Name: _____ **Date:** _____

D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 6F-1 Chase the Dots Target

TIMED ACTIVITY

SPEED GRID
Objective: To fire pellets into the circles on the target, within a time limit.
Scoring: One point is awarded for each circle that is hit by a pellet within the time allotted.
Equipment Required: Mandatory: • Cadet air rifle five pellet clip (three per firing lane); • Speed Grid Target (one per cadet); and • A stopwatch. Optional aids to firing are limited to the following: • Cadet air rifle sling; • Marksmanship jacket; • Shooting glove; or • Hat.
Activity Guidelines: 1. Distribute one Speed Grid Target to each cadet. 2. Have cadets write their name and rank on the target and attach it to the target frame. 3. Cadets will fire in relays following the commands given by the RSO. 4. Five pellets will be pre-loaded into the cadet air rifle five pellet clip. Three clips will be used per cadet. 5. Cadets will fire one pellet into each circle on the target. 6. A suggested time limit for this activity is 15 minutes. 7. Have cadets retrieve their targets. 8. Score the targets based on the method described above. 9. On completion of the activity or as time allows, place the targets out for the cadets to review. 10. Return the targets to cadets. The following is prohibited: • Alterations made to the rifles. • Supports used as a rest for the rifle or the forearm. • A spotting scope. • Use of sights not provided with the cadet air rifle. • Coaching.
Note: To make this activity more difficult, shorten the time allowance.



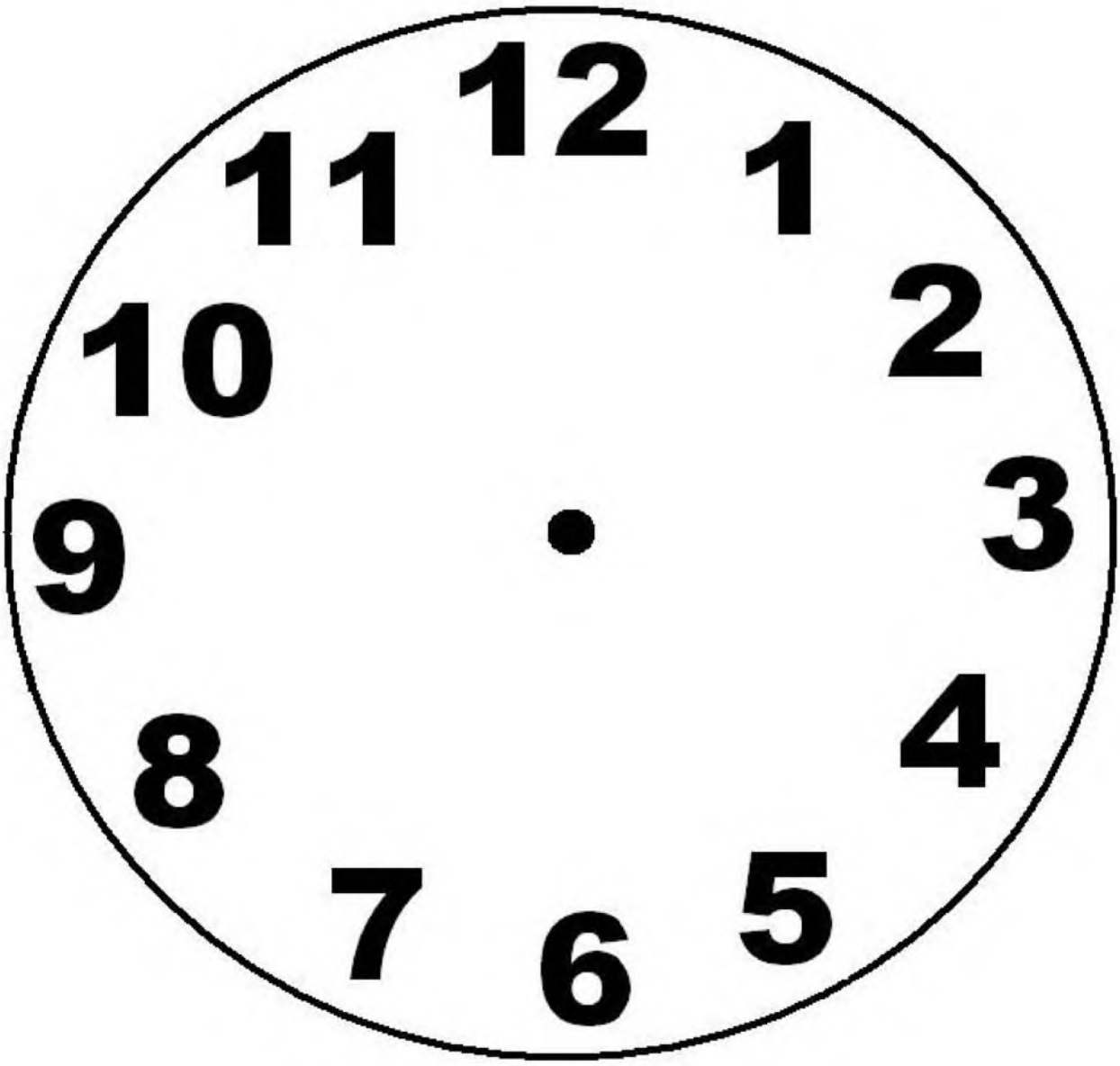
D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 6G-1 Speed Grid Target

TIMED ACTIVITY

BEAT THE CLOCK
Objective: To fire pellets into the designated hours (numbers) within a time limit.
Scoring: One point is awarded for each correct hour (number) hit by a pellet within the time allotted.
Equipment Required: Mandatory: • Beat the Clock Target (one per cadet); and • A stopwatch. Optional aids to firing are limited to the following: • Cadet air rifle sling; • Marksmanship jacket; • Shooting glove; or • Hat.
Activity Guidelines: 1. Distribute one Beat the Clock Target to each cadet. 2. Have cadets write their name and rank on the target and attach it to the target frame. 3. Cadets will fire in relays following the commands given by the RSO. 4. Cadets will be given six pellets. 5. The RSO will call out six hours (numbers) in five second increments using the 24-hour clock. 6. Cadets will fire one pellet at each hour (number) as it is called by the RSO (e.g. if 1300 hrs was called the cadet will fire at the 1 on the clock face). 7. Have cadets retrieve their targets. 8. Score the targets awarding one point for each correct number hit on the target. 9. On completion of the activity or as time allows, place the targets out for the cadets to review. 10. Return the targets to cadets. The following is prohibited: • Alterations made to the rifles. • Supports used as a rest for the rifle or the forearm. • A spotting scope. • Use of sights not provided with the cadet air rifle. • Coaching.
Note: To make this activity more difficult, shorten the time allowance.

BEAT THE CLOCK TARGET



Name: _____ **Date:** _____

D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 6H-1 Beat the Clock Target

COMPETITIVE ACTIVITY

CORPS/SQUADRON MARKSMANSHIP COMPETITION
Objective: To provide cadets the opportunity to compete within the corps/squadron.
Scoring: Targets will be scored IAW A-CR-CCP-177/PT-001, to include: • Each target has a highest possible score of 100 points (10 diagrams worth 10 points each). • All shot holes are scored using the highest value of the scoring ring that it is touching. • Shots outside the scoring rings are given a value of zero. • If more than the prescribed number of shots are fired at a target, the shots with the highest value will be discarded until the correct number of shots remain on the target. A two-point penalty will be deducted for each excess shot. • If more than one shot is fired at a scoring diagram, only the prescribed number of shots may be fired at the remaining diagrams [e.g., if two shots were fired at the first diagram, one diagram on the target would remain blank (free of shots)]. If this occurs more than twice, a two-point penalty will be deducted for each excess shot.
Equipment Required: Mandatory: CCT2001AR853 Canadian Cadet Movement Competition Targets (two per cadet). Optional aids to firing are limited to the following: • Cadet air rifle sling; • Marksmanship jacket; • Shooting glove; or • Hat.
Activity Guidelines: 1. This activity may be conducted as individuals or teams of four. 2. Distribute two CCT2001AR853 Canadian Cadet Movement Competition Targets to each cadet. 3. Have cadets write their name and rank on the target and attach it to the target frame. 4. Cadets will be given 30 minutes to fire 20 pellets (one pellet at each diagram [zeroing pellets are permitted]). 5. On completion of the activity or as time allows, place the targets out for the cadets to review. 6. After viewing, all targets will be collected by the RSO to record results. 7. Return the targets to cadets. The following is prohibited: • Cross-firing. • Alterations made to the rifles. • Supports used as a rest for the rifle or the forearm. • A spotting scope. • Use of sights not provided with the cadet air rifle.

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COMPETITIVE ACTIVITY

LUNAR LAUNCH
Objective: To provide cadets the opportunity to compete within the corps/squadron.
Scoring: The average distance from the earth to the moon is 384 400 km. All targets from marksmanship activities conducted during the training year will be added together to achieve a distance from earth and position on the space shuttle crew. The four scoring levels/positions must meet the following standards: 1. Mission Commander: A score of 100 or more: 384 400 km from earth, lunar landing! 2. Mission Specialist: A minimum score of 75: 288 300 km from earth. 3. Chief Engineer: A minimum score of 50: 192 200 km from earth. 4. Science Officer: A minimum score of 25: 96 100 km from earth, lunar launch!
Equipment Required: Mandatory: Any targets used in marksmanship activities during the training year.
Activity Guidelines: 1. Add the scores from the targets used by each cadet during the training year. 2. Use the scoring method described above to assign the cadets levels/positions on the space shuttle crew.
Notes 1. If this activity is conducted, a record must be kept of the cadets' scores from marksmanship activities. 2. This activity may be conducted over multiple training years. 3. The certificate found at Annex J may be awarded to cadets who achieve levels/positions in this activity.

This is to certify that

_____

has achieved the position of

_____

in the

Lunar Launch Marksmanship Activity

_____ _____

Date Range Safety Officer

CHAPTER 7
PO 207 – SERVE IN AN ARMY CADET CORPS

ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 1

EO M207.01 – IDENTIFY RED STAR TRAINING OPPORTUNITIES

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

A handout of the POs and EOs for Red Star training is located in A-CR-CCP-702/PG-001, Chapter 2, Annex A. Photocopy if required.

Obtain the corps full value contract developed during EO M107.01 (Participate in a Discussion on Year One Training). If a full value contract was not developed, instructors may choose one from Annex A to complete with the cadets as an optional activity.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for this lesson to introduce the cadets to year two training and to generate an interest.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to identify the training they will receive in Red Star and evaluate individual and group goals.

IMPORTANCE

It is important for cadets to know what training will be conducted during Red Star to give them an overview of what the training year will entail. Red Star will be an exciting year of new experiences. Providing the cadets with a brief overview of the program may create eagerness to complete training. The updates in the cadet corps full value contract should energize the individual cadets and the entire group for the upcoming training year.

Teaching Point 1 **Discuss Red Star Mandatory Training**

Time: 5 min Method: Interactive Lecture

COMMON TRAINING

There is common training which applies to Sea, Army and Air Cadets. POs for training that is common to all cadets in year two include:

PO Number and Topic	PO Statement
201 Citizenship	Identify the Role of an Environmentally Conscious Canadian Citizen
202 Community Service	Perform Community Service
203 Leadership	Demonstrate Leadership Attributes Within a Peer Setting
204 Personal Fitness and Healthy Living	Update Personal Activity Plan
205 Recreational Sports	Participate in Recreational Sports
206 Marksmanship	Fire the Cadet Air Rifle During Recreational Marksmanship
207 General Cadet Knowledge	Serve in an Army Cadet Corps
208 Drill	Execute Drill as a Member of a Squad
211 Summer Biathlon	Participate in Competitive Summer Biathlon Activities

ARMY CADET TRAINING

There is elemental training which is specific to Army Cadets. POs for training that is specific to Army Cadets in year two include:

PO Number and Topic	PO Statement
220 Canadian Forces Familiarization	Recognize Canadian Forces Peace Support Operations
221 Field Training	Perform the Duties of a Section Member During a Weekend Bivouac Exercise
222 Navigation	Navigate Along a Route Using a Map and Compass
223 Trekking	Hike Along a Route as Part of an Overnight Exercise
224 Wilderness Survival	Identify Immediate Actions to Take When Lost

Expedition is one activity that distinguishes Army Cadets from the other cadet elements. According to CATO 41-05, *Royal Canadian Army Cadet Expedition Program*, expedition is defined as any activity that consists of

dynamic travel of no less than 36 hours in duration, where there is a clear goal associated with the activity. In Red Star training, expedition is supported by PO 221 Field Training, PO 222 Navigation, PO 223 Trekking and PO 224 Wilderness Survival.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. What is common training?

Q2. What are the common training POs?

Q3. What are the Army specific POs?

ANTICIPATED ANSWERS

A1. Training that applies to Sea, Army and Air Cadets.

A2. Common training POs include:

- 201 Citizenship;
- 202 Community Service;
- 203 Leadership;
- 204 Personal Fitness and Healthy Living;
- 205 Recreational Sports;
- 206 Marksmanship;
- 207 General Cadet Knowledge;
- 208 Drill; and
- 211 Summer Biathlon.

A3. Army specific POs include:

- 220 CF Familiarization;
- 221 Field Training;
- 222 Navigation;
- 223 Trekking; and
- 224 Wilderness Survival.

Teaching Point 2 **Discuss Red Star Complementary Training**

Time: 5 min Method: Interactive Lecture

This TP will vary by cadet corps. Discuss the complementary training the cadet corps will pursue throughout the Red Star Program. Refer to the corps annual training plan for complementary training opportunities.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. What complementary training will be completed in the field?

Q2. What complementary training is available to Sea, Army and Air Cadets?

Q3. What complementary training is the most interesting?

ANTICIPATED ANSWERS

A1. Answers will vary.

A2. Answers will vary but will be only be from common POs.

A3. Answers will vary.

Teaching Point 3 **Revisit the Cadet Corps Full Value Contract**

Time: 15 min Method: Interactive Lecture

A corps full value contract (FVC) may have been developed in EO M107.01 (Participate in a Discussion on Year One Training). The information below is a refresher of the FVC.

Discuss the existing corps FVC. All cadets should be aware of the corps goals that were developed.

Re-evaluate and update the existing corps FVC. The cadets may agree that some goals need to be changed or that some need to be added or deleted.

If the corps does not have a FVC, the objectives and goals must still be discussed. No time has been allotted to complete a FVC in this lesson; however complementary time may be allocated as required. The instructions for completing a FVC are found at Annex A.

FULL VALUE CONTRACT

The objectives of the FVC are:

- respect integrity;
- respect diversity; and
- respect the individuals and the group to which the cadet belongs.

When instructors and cadets respect one another, it is easier to work together toward the same goal and support everyone in the learning process.

Goals of the FVC

Before establishing a FVC, everyone must be ready to commit to common goals.

Be Here. The FVC asks everyone to make a conscious commitment to be present in **body and mind**, as well as to commit to **full participation** and to accept and demonstrate responsibility for actions. This means that everyone will show interest in supporting each other and actively engaging in the learning process.

Be Safe. In order to stimulate interest, facilitate participation and create an open-minded environment for the group members; everyone must feel safe. It is the instructor's responsibility to ensure that team members feel physically and emotionally safe in order to contribute to their learning process. This responsibility also falls on group members. Behaviours and attitudes must not put other group members at risk. A safe environment will encourage each member to actively participate, ask questions and give answers without fear of being ridiculed.

Set Goals. It is essential that everyone set personal goals. These goals provide the person and the group reference points against which they will make choices about actions and plans. In every learning process, it is imperative to set goals. Once goals are set, group members and individuals will take on the responsibility to reach them. The FVC calls for the members of a group to work collectively toward the attainment of group goals and to support each other in meeting individual goals.

Be Honest. Being honest assumes that everyone is honest with others and with oneself. For example, in a situation of disappointment or anger, the team members must simply acknowledge their feelings in regard to the situation and openly and fairly explain their state of mind. In this situation, everybody will be able to work toward solving the problem. Being honest requires members to be accountable to each other and responsible for their own actions and words.

Let Go and Move On. The FVC requires that group members acknowledge that they will not always agree and that they will have different opinions and ideas. In this instance, members must choose to put aside differences and move forward in order to achieve the goals.

Using a FVC

FVCs can be used differently, but often work on their own. They become team-building tools for the group. One can refer to a FVC after an activity, experience, or situation by asking to the group how they have acted and reacted. Normally, group members will refer to it even before a leader does. Group members must be able to identify by themselves what went well and what did not. They must also be able to identify what they need to improve in order to respect their "contract".

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

Q1. What are the objectives of the FVC?

Q2. Before letting go and moving on, what must happen?

Q3. How is the FVC used?

ANTICIPATED ANSWERS

A1. The objectives of the FVC are:

- respect integrity;

- respect diversity; and
- respect the individuals and the group to which the cadet belongs.

A2. Members must choose to put aside differences and move forward in order to achieve the goals.

A3. One can refer to a FVC after an activity, experience, or situation by asking to the group how they have acted and reacted.

END OF LESSON CONFIRMATION

QUESTIONS

Q1. What are some of the POs in Red Star that are specific to Army Cadets?

Q2. What complementary training will the cadet corps participate in?

Q3. What are the five goals of the FVC?

ANTICIPATED ANSWERS

A1. PO 221 Field Training, PO 222 Navigation, PO 223 Trekking and PO 224 Wilderness Survival.

A2. Answers will vary by cadet corps.

A3. The five goals are:

- be here;
- be safe;
- set goals;
- be honest; and
- let go and move on.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Cadets should know what can be expected in their training year in order to maintain interest in the program. Before opportunities occur, the cadets should have an idea of the training in which they would like to participate.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

A0-010 CATO 11-03 D Cdts 2. (2006). *Cadet Program Mandate*. Ottawa, ON: Department of National Defence.

A2-031 CATO 40-01 D Cdts 3. (2003). *Army Cadet Program Outline*. Ottawa, ON: Department of National Defence.

A2-035 CATO 41-05 D Cdts 4. (2006). *Army Cadet Expedition Program*. Ottawa, ON: Department of National Defence.

C2-038 (ISBN 0787224596) Henton, M. (1996). *Adventure in the Classroom: Using Adventure to Strengthen Learning and Build a Community of Life-long Learners*. Dubuque, IA: Kendall Hunt Publishing.

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ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 2

EO M207.02 – RECOGNIZE THE HISTORY OF THE ROYAL CANADIAN ARMY CADETS (RCAC)

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Photocopy the handout of significant events located at Annex C for each cadet.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TP1 and TP2 to orient the cadets to the history of the RCAC and to present basic material.

A group discussion was chosen for TP3 as it allows the cadets to interact with their peers and share their knowledge, experiences, opinions, and feelings about the history of the RCAC.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall have recognized the history of the RCAC.

IMPORTANCE

It is important to know the historical events of the RCAC. The significant events outlined contributed greatly to the Canadian Cadet Movement. By discussing significant historical events, cadets may develop an appreciation for history and for the organizations involved in shaping the Army Cadet Program into what it is today.

Teaching Point 1 **Significant Events of the Army Cadet Program**

Time: 15 min Method: Interactive Lecture

Using the handout located at Annex C, introduce the significant historical events.

RCAC HISTORY

The Formation of Drill Associations

Motivated by the American Civil War and the threat of the Fenian Raids, Canada's first school cadet units were formed between 1861 and 1865, several years before Confederation. These early cadet units were called "drill associations". In those days drill was not a parade square exercise but the method of manoeuvring troops in battle. These early drill associations could have included members ranging in age from 13 to 60, so it might be argued that they were not really cadet corps but auxiliary militia companies.

The distinction between high school cadets and adult militiamen became clear in 1879 when the Militia General Order 18 authorized the formation of 74 "Associations for Drill in Educational Institutions," for young men over 14 years of age who were "upon no account to be employed in active service." The cadets provided their own uniforms. The cadets in the photograph below imported their uniforms from Scotland at such great expense that only one youth per family could afford to belong.

A-CR-CCP-121/PT-001 (p. 2-20)

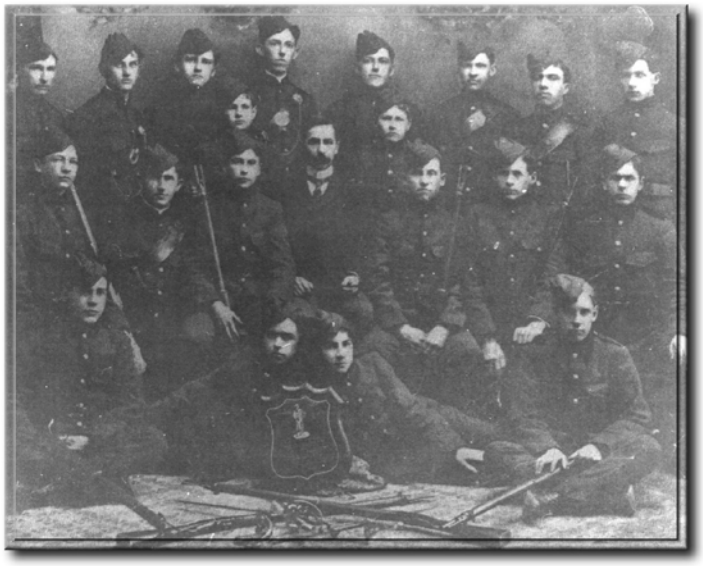
Figure 7-2-1 Cadet Corps from 1890

The 74 drill associations authorized in 1879 included 34 in Ontario, 24 in Quebec, 13 in the Maritime Provinces, 2 in Manitoba, and 1 in British Columbia. Canada's oldest continually serving cadet corps is No. 2 Bishop's College School Cadet Corps in Lennoxville, Quebec, which was formed by the authority of Militia General Orders on December 6, 1861.

By 1887, the drill associations had detailed regulations governing their formation and activities. Arms and other equipment were issued to those schools that agreed to provide military training to boys over the age of 12.

The school supplied accommodations and instructors and kept attendance records. Members supplied their own uniforms. This increased support was motivated in part by the campaign against the North-West Rebellion of 1885.

The term “Cadet Corps” appeared for the first time in Ontario in 1898, along with a provision that corps instructors would be members of the school teaching staff, instead of an instructor from the local militia unit. Militia General Orders 60 and 61, of 1899, first authorized cadet corps to be attached to militia units, limiting membership to young men 14–19 years old.



#10 Mount Forest High School Cadet Corps - 1902

A-CR-CCP-121/PT-001 (p. 2-21)

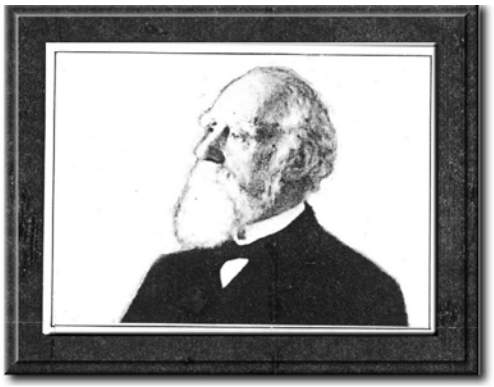
Figure 7-2-2 Cadet Corps from 1902

The First Commissioned Officers

In 1904, the current numbering system was established to identify cadet corps in their sequence of formation. In 1908, a cadre of commissioned officers was formed which was comprised of school teachers whom the Department of Militia and Defence trained and paid to conduct drill and physical training in participating schools. This officer cadre was called the Cadet Services of Canada. It was a component of the Canadian Army and the forerunner of the current Cadet Instructor Cadre (CIC). This arrangement between the Federal Government and local school boards contributed significantly to the development of physical education programs in Canadian schools.

The Contributions from Lord Strathcona

In 1910, Lord Strathcona (Sir Donald Alexander Smith), the Canadian High Commissioner to Britain, deposited in trust with the Dominion Government $500 000, bearing an annual interest at 4 percent, to develop citizenship and patriotism in school cadets through physical training, rifle shooting, and military drill. Nearly a century later, the Strathcona Trust is still providing equipment for cadet training. About $50 000 is distributed each year to Strathcona Trust committees across Canada.



A-CR-CCP-121/PT-001 (p. 2-22)

Figure 7-2-3 Sir Donald Alexander Smith, Lord Strathcona

Note. From "Lord Strathcona Trust Fund Medal", 2007, Army Cadet League of Canada (Ontario). Copyright 2007 by the Army Cadet League of Canada (Ontario). Retrieved 16 April 2007, from http://www.cyberbeach.net/army/badges/lordst~1.jpg

Figure 7-2-4 Lord Strathcona Medal

The Impact of World War I (WWI)

The Army Cadet organization flourished during the beginning of the 20th century. Some 40 000 former Army Cadets served in Canada's forces during WWI, and by the end of the war there were about 64 000 cadets enrolled in Army Cadet corps across Canada.

The 1928 Regulations for the Cadet Services of Canada directed Army Cadet leaders to "…impart mental, moral, and physical training to their Cadets and [seek] to develop in them principles of patriotism and good citizenship." It went on to recommend about cadet training, "The exercises need not be of too rigid a military pattern. Discipline, individual and collective, is essential, and drill of an elementary character is to be encouraged, but gymnastic exercises, physical drill, signalling, scouting, swimming, despatch riding, bridge building, map reading, and all forms of training that tend to produce physical fitness, mental and bodily alertness, individuality, self-reliance, and resourcefulness in emergencies are to be regarded as of not less value than military drill pure and simple."

The Impact of World War II (WWII)

When WWII began, public interest in cadet training was revived and cadet corps were formed in many high schools. It is estimated that nearly 124 000 former Army Cadets served in Canada's forces during WWII, with more than 19 000 receiving commissions and over 2700 awarded decorations.

After WWII, the summer camp philosophy changed to incorporate the lessons learned from 1940-1945, that primarily being the evolution of technology and its various uses in the Canadian Army. Now the Army Cadet summer camps became much more than the traditional 10-day camps, they began to include trades training: Infantry Basic Training, Signals, Special Engineering Equipment, Driver and Mechanic, and Fire Control Equipment. They were determined from all the trades that had been important during war time, however this time with a threat implied – Canada would not be caught unprepared.

Given the Title "Royal"

In 1942, in recognition of the significant contribution of former cadets to the war effort, His Majesty King George VI conferred the title "Royal" on the Royal Canadian Army Cadets and accepted the appointment of "Colonel-in-Chief" of the Royal Canadian Army Cadets. His Royal Highness Prince Philip, Duke of Edinburgh, presently holds this appointment.

Next Reorganization of Cadet Training

In 1944, "RCAC Training Programme" listed Fundamentals, Health and Physical Education, Drill and Command, Small Arms Training, Knots, Fieldcraft, Signalling, Band, First Aid, Woodcraft, Use of Maps, Organized Sports, I.C. (Internal Combustion) Engines, Weapon Training, and Instruction as authorized training subjects. Corps were assessed at their annual inspection and rated as to their efficiency (ability to show cadets were trained in all subjects). The corps would then receive funding based on their annual inspection score.

After World War II, quotas were imposed reducing Canada's total cadet force to about 75 000 members. Many of the "closed" corps, those whose membership was restricted to the students in one particular school, were disbanded or withered away after their school made membership voluntary. Some of them became "open" corps, training in militia armouries, Legion halls or acquiring their own buildings. The Korean War stimulated growth among these "open" corps in the 1950s and 1960s.

The Introduction of the RCAC Crest

In 1956, Her Majesty Queen Elizabeth authorized a new design for the RCAC crest, including the motto "ACER ACERPORI" which means "As the maple, so the sapling".

Note. From History & Heritage Committee, Army Cadet League of Canada, 2007, Army Cadet History. Copyright 1995-2007 by the Army Cadet League of Canada. Retrieved 16 April 2007, from http://www.armycadethistory.com/Main_page.htm

Figure 7-2-5 Royal Canadian Army Cadet Crest

The Unification of the Canadian Forces (CF)

During the period of 1964-1966, the CF underwent a complete reorganization. This ended with the unification of the CF on February 1, 1968. It consisted of a merger of the Canadian Navy, Army and Air Force into one unified structure.

At this time, the Cadet Services of Canada became the Cadet Instructors List (CIL), and the Directorate of Cadets (D Cdts) was formed at National Defence Headquarters (NDHQ). D Cdts was established in Ottawa to set policy and coordinate the activities of the Sea, Army and Air Cadets.

The Inclusion of Girls

Girls have participated unofficially in cadet training almost from the beginning. There were always a few cadet corps that paraded a female platoon or company in some form of uniform. These unofficial female cadets could never lawfully be trained, issued uniforms or equipment, fed, transported or allowed to attend summer training. The problem was solved on July 30, 1975 when Parliament passed Bill C-16, amending the relevant legislation by changing the word “boys” to “persons”, thereby permitting females to become members of the RCAC.

The New Uniform

In 1977, a new uniform (dark green to match the colours of the CF Army uniforms) was issued to Army Cadets, replacing the wool tunics, pants and putties (waterproof cloths that were wrapped around the lower leg).

By the early 1950s, the cadets began to wear the new battle dress tunics, almost identical to the regular force and reserve uniforms. The difference between the 1942 pattern and the 1950 pattern was the tunic being shorter in the 1950 pattern and the waist belt being replaced by a smaller belt at the bottom of the tunic.

Note. From History & Heritage Committee Army Cadet League of Canada, 2007, Accoutrements, Shoulder Flashes, Hat Badges and Uniforms. Copyright 1995-2007 by the Army Cadet League of Canada. Retrieved 23 April 2007, from http://www.armycadethistory.com/Uniforms.htm

Figure 7-2-6 1942 Pattern Uniform

Note. From History & Heritage Committee, Army Cadet League of Canada, 2007, Accoutrements, Shoulder Flashes, Hat Badges and Uniforms. Copyright 1995-2007 by the Army Cadet League of Canada. Retrieved 23 April 2007, from http://www.armycadethistory.com/Uniforms.htm

Figure 7-2-7 1950 Pattern Uniform

The Presentation of the Army Cadet Banners

On August 20, 1985, at the National Army Cadet Camp in Banff, Alberta, His Royal Highness Prince Philip, Colonel-in-Chief, presented the Royal Canadian Army Cadet Banner, the Royal Canadian Army Cadet Pipe Banner and the Royal Canadian Army Cadet Trumpet Banner.

Note. From Department of National Defence, 2007, Symbols of the Royal Canadian Army Cadets. Retrieved 16 April 2007, from http://www.cadets.ca/armcad/resources-ressources/symbols/army_flags/army_flags.htm

Figure 7-2-8 The Royal Canadian Army Cadet Banner

Note. From Department of National Defence, 2007, Symbols of the Royal Canadian Army Cadets. Retrieved 16 April 2007, from http://www.cadets.ca/armcad/resources-ressources/symbols/army_flags/army_flags.htm

Figure 7-2-9 The Royal Canadian Army Cadet Trumpet Banner

Note. From Department of National Defence, 2007, Symbols of the Royal Canadian Army Cadets. Retrieved 16 April 2007, from http://www.cadets.ca/armcad/resources-ressources/symbols/army_flags/army_flags.htm

Figure 7-2-10 The Royal Canadian Army Cadet Pipe Banner

The Change of Enrolment Age

In 1987, the enrolment age was returned to 12 years old.

The Cadet Instructor Cadre (CIC)

The Cadet Instructors List (CIL) became the Cadet Instructor Cadre (CIC) on 20 July 1994, which allowed the use of a bilingual format for both the title and the acronym.

The 125th Anniversary

2004 marked the 125th anniversary of the Royal Canadian Army Cadets. Canada Post honoured the Army Cadets with a commemorative stamp, which was unveiled in Ottawa on March 26, 2004.

Note. From History & Heritage Committee, Army Cadet League of Canada, 2007, Army Cadet History. Copyright 1995-2007 by the Army Cadet League of Canada. Retrieved 16 April 2007, from http://www.armycadethistory.com/Main_page.htm

Figure 7-2-11 Army Cadet Stamp Issued by Canada Post

The Updates to Modern Form

In 1999, the Army Cadet Program was updated and “adventure and challenge” were the principle elements.

In September 2008, the Army Cadet Program was updated. The key objectives for this update were improving management and administration, connecting the three elements, and incorporating current professional practices from the fields of education and youth development. The expedition program was entrenched in the Army Cadet Program as the primary mechanism of program delivery.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. In what year did Lord Strathcona develop a $500 000 trust for Army Cadets?

Q2. What bill allowed females to become members of Army Cadets?

Q3. When, where, and by whom was the RCAC Banner presented?

ANTICIPATED ANSWERS

A1. The trust was developed in 1910.

A2. Bill C-16 allowed females to become members of Army Cadets.

A3. The RCAC Banner was presented on August 20, 1985, at the National Army Cadet Camp in Banff, Alberta, by His Royal Highness Prince Philip.

Teaching Point 2 **Significant Events for the Army Cadet League of Canada**

Time: 5 min Method: Interactive Lecture

Using corps-specific examples when possible, discuss the Army Cadet League of Canada.

History of the Army Cadet League of Canada

The unification of Canada's armed forces caused some fundamental changes to the Army Cadet organization. Prior to this, the Cadet Services of Canada (CS of C) represented the movement at Army headquarters on behalf of the sponsors, communities and cadet leadership. The CS of C, a sub-component of the Army Reserve with membership on the Canadian Defence Association, had considerable influence in cadet matters.

The Army Cadet League of Canada was formed on April 1, 1971, to give the Army Cadets a civilian voice that was comparable to that of the Navy League of Canada and the Air Cadet League of Canada. Pressure was applied to the Army to conform to this structure and assist with a civilian voice. The Army Cadet League began to work with the Department of National Defence (DND) to assist in the administration of the Army Cadet movement.

The Army Cadet League of Canada is a civilian non-profit organization, committed to supporting Army Cadets by working in partnership with local communities and the CF. They assist in the development of policies and methods for achieving the aims and objectives of the CCM in general, and the RCAC in particular. They are a registered charitable organization and are supported by donations and a grant from DND. They also hold fundraising events to provide financial assistance when possible.

There is a national office, located in Ottawa, Ontario as well as branch offices located in each province and three in the northern region. There is a small cadre of full-time staff members at the national office, however most members are volunteers.

The Objectives of the Army Cadet League

The objectives of the Army Cadet League are to carry out the following tasks:

1. Encourage and promote public interest in and support for the Royal Canadian Army Cadets.
2. Facilitate and recommend the formation of Army Cadet corps.
3. Assist in the recruitment of cadet instructors and participate in the recruitment of cadets.
4. Provide and supervise local sponsors.
5. Ensure that the Army Cadet Program is adventure-oriented, challenging, consistent with their aims and relevant to present society.
6. Collect, receive, hold and invest funds and property from contributions, gifts, grants, subscriptions or legacies, and use such funds, subject to the donor's direction, for the benefit of the RCAC.
7. Protect the overall interests of the Army Cadet League of Canada.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. Why was the Army Cadet League of Canada formed?

Q2. How does the League provide financial aid?

Q3. What is the relationship between the League and the public?

ANTICIPATED ANSWERS

A1. The unification of Canada's armed forces caused major changes to the Army Cadet Organization. The Air and Sea Cadets were represented by their respective leagues and consequently, pressure was applied to the Army to conform to this structure and assist with a civilian voice.

A2. The Army Cadet League is supported by donations and a grant from DND. They may also hold fundraising events in order to provide financial assistance when possible.

A3. The Army Cadet League is responsible for encouraging and promoting public interest in and support for the Royal Canadian Army Cadets.

Teaching Point 3 **Reflect on the History of the RCAC**

Time: 5 min Method: Group Discussion

BACKGROUND KNOWLEDGE

The point of the group discussion is to draw aspects of the history of the RCAC from the group using the tips for answering/facilitating discussion and the suggested questions provided.

Using the information presented throughout this lesson, conduct a group discussion with the cadets.

GROUP DISCUSSION

TIPS FOR ANSWERING/FACILITATING DISCUSSION

- Establish ground rules for discussion, e.g. everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Manage time by ensuring the cadets stay on topic.
- Listen and respond in a way that indicates you have heard and understood the cadet. This can be done by paraphrasing their ideas.
- Give the cadets time to respond to your questions.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer. Cadets must also have the option to pass if they wish.
- Additional questions should be prepared ahead of time.

SUGGESTED QUESTIONS

Q1. What events were interesting?

Q2. What events have a direct impact on the training received today?

Q3. What would be different if Bill C-16 was not passed? How would cadet corps be affected?

Q4. How does the league assist the cadet corps?

Other questions and answers will develop throughout the reflection stage. The discussion should not be limited to only those suggested.

Reinforce those answers given and comments made during the group discussion, ensuring the teaching point has been covered.

CONFIRMATION OF TEACHING POINT 3

The cadets' participation in the group discussion will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in the discussion of the history of the RCAC will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Knowing the past develops an appreciation and a sense of pride of the people and events that contributed to what exists today. Learning history is an important aspect of being an Army Cadet.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

A0-036 A-CR-CCP-121/PT-001 D Cdts 3. (2000). *Royal Canadian Army Cadet Reference Book*. Ottawa, ON: Department of National Defence.

A0-045 Cadets Canada. (2007). *About Cadets – History*. Retrieved 19 February 2007, from http://www.cadets.ca/about-nous/histo_e.asp.

C2-063 Army Cadet League of Canada. (2007). *Army Cadet League of Canada*. Retrieved 9 March 2007, from http://www.armycadetleague.ca.

ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 3

EO M207.03 – RECOGNIZE THE ROLE AND RESPONSIBILITIES OF THE LOCAL SPONSOR

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Become familiar with the cadet corps local sponsor and sponsoring committee. Be prepared to give examples of what the sponsor does for the cadet corps.

Contact members of the local sponsor and invite them to participate in this EO.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for this lesson to orient the cadets to the role and responsibilities of the local sponsor and to present basic material.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall recognize the role and responsibilities of the local sponsor.

IMPORTANCE

It is important for cadets to know the support structure of their cadet corps. Every cadet corps across Canada has a local sponsor who provides assistance to help complete training. For a cadet corps to run effectively, it needs a variety of support structures. A dependable and reliable sponsor is key to the success of a cadet corps and each cadet should be aware of their importance.

Teaching Point 1 **Define Sponsor and Sponsoring Committee**

Time: 15 min Method: Interactive Lecture

Provincial/territorial branches of the Army Cadet League may refer to the sponsoring committee as a different term (e.g. support committee). Ensure the cadets know who the cadet corps sponsor and sponsoring committee are.

Discuss the difference between a sponsor and a sponsoring committee.

SPONSOR VERSUS SPONSORING COMMITTEE

Sponsor. With respect to a cadet corps, the organization or persons accepted by or on behalf of the Chief of Defence Staff to undertake jointly with the Canadian Forces and the supervisory sponsor (the Army Cadet League), responsibility for the organization and administration of the cadet corps.

Sponsoring Committee. A working support committee that is a member of and supervised by the league and is comprised of persons who are approved, registered and screened in accordance with league policy to complete the functions required to support the corps. Sponsoring committees are normally comprised of representative(s) of the sponsor, parents, and other acceptable civilian parties from the community. They are sometimes called parents' committees or civilian committees; however, not every parents' committee is a sponsoring committee.

A cadet corps is required to have a sponsor. Sponsoring committees complement the support offered by the local sponsor. If there is no sponsoring committee, the league expects the sponsor to either form one or assume the responsibilities.

The sponsoring committee may be a large part of the cadet corps. There have been cases where the sponsoring committee has contributed more than the sponsor, so they applied to become the sponsor.

The following is a general structure of positions within the sponsor and the basic responsibilities corresponding to the positions. These positions may vary or terms may change from sponsor to sponsor.

Chairperson. The chairperson is the senior official in the sponsoring body and is responsible for all activities/functions. All members must keep chairperson informed of their activities and he/she in turn must keep the corps informed of activities within the sponsor.

Secretary. The secretary is responsible for maintaining all of the records and correspondence. During committee and general meetings, the secretary is responsible for recording the minutes.

Treasurer. The treasurer is responsible for maintaining all financial records and transactions. All expenditures should be recorded for purposes of budgeting and financial reporting.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. What is a sponsor?

Q2. Who normally comprises a sponsoring committee?

Q3. Who is the cadet corps sponsor?

ANTICIPATED ANSWERS

A1. With respect to a cadet corps, the organization or persons accepted by or on behalf of the Chief of Defence Staff to undertake jointly with the Canadian Forces and the supervisory sponsor (The Army Cadet League), responsibility for the organization and administration of the cadet corps.

A2. Sponsoring committees are normally comprised of representative(s) of the sponsor, parents, and other acceptable civilian parties from the community.

A3. Answers will vary.

Teaching Point 2 **Discuss the History of the sponsoring Committee**

Time: 5 min Method: Interactive Lecture

HISTORY OF THE SPONSORING COMMITTEE

As stated in Issue 11 of *Cadence: The Leadership Magazine of the Canadian Cadet Movement*, prior to the formation of The Army Cadet League of Canada on April 1, 1971, cadet corps were sponsored by Militia or Regular Force units affiliated with each corps. These regimental units wanted to provide youth with a unique opportunity to develop interdependence and personal character. The approach taken was firmly based on that unit's own history and traditions.

Cadet corps relied on their regiment for support and leadership. Parent involvement was unwanted and financial aid was infrequent.

With budget restrictions to the Canadian Forces, support became less available from the affiliated unit. In order to save corps, parents across Canada became involved by raising money and providing support.

When The Army Cadet League of Canada formed, a main area of concern was support to the cadet corps. The league set out to form structured sponsoring committees at each corps to add to the support that the local sponsor provided. These committees were community-based, consisting of parents, league members, members of military associations and volunteers. Originally, many commanding officers opposed these committees, but now appreciate the assistance. Today, these committees are a major source of support.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. When was the Army Cadet League of Canada formed?

Q2. Prior to the formation of The Army Cadet League of Canada, who sponsored cadet corps?

Q3. Who were the main people that helped to form the first sponsoring committees?

ANTICIPATED ANSWERS

A1. The Army Cadet League was formed on April 1, 1971.

A2. Prior to The Army Cadet League of Canada, Militia or Regular Force units affiliated with each corps sponsored cadet corps.

A3. Parents, league members, members of military associations and volunteers were the main sources of support in forming these committees.

Teaching Point 3 **Explain the Role and Responsibilities of the Local Sponsor**

Time: 5 min Method: Group Discussion

Discuss the role and responsibilities using corps-specific examples.

ROLE OF THE SPONSOR

It is the role of the sponsor to ensure responsibilities are met In accordance with the *Memorandum of Understanding*, for the proper and efficient delivery of the Cadet Program within Canada.

RESPONSIBILITIES OF THE SPONSOR

Fundraising

It is the responsibility of the sponsor to organize fundraising activities in consultation with the corps commanding officer (CO). Annual reports are to be produced by the sponsor when required by law.

Recruiting Cadets

It is the responsibility of the sponsor to organize local community campaigns to attract cadets to become members of the corps.

Attracting Officers to the Corps

It is the responsibility of the sponsor to conduct local campaigns to attract potential candidates within the community to become members of the Cadet Instructors Cadre (CIC) and civilian instructors (CIs). This is based on the needs confirmed by the CO of the corps.

Screening Volunteers

It is the responsibility of the sponsor to identify and conduct the screening process of potential volunteers. The sponsor is responsible for completing the process and providing these results to the league.

Providing Adequate Office and Training Facilities

The sponsor is responsible for providing adequate office and training facilities, where they are not provided by DND. This is to include insurance requirements, as necessary.

Participating in Senior Cadet Rank Appointments

The sponsor is responsible to assist with the selection process for senior cadets.

Participating in Selections for CSTC/Exchanges

The sponsor is responsible for cooperating with the corps CO to promote summer courses and exchanges and to participate in the selection process accordingly, in accordance with the league and DND agreements and responsibilities.

Participating in Selections for Honours and Awards

The sponsor is responsible for participating in the joint selection process for honours and awards from the league and in initiating the selection process for league-specific awards.

The sponsor plays an important role in developing and maintaining positive community relationships with businesses, municipal government, local service clubs, and the affiliated unit.

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

Q1. What role does the sponsor play in fundraising?

Q2. Who is responsible for recruiting CIC officers, CIs, and cadets to the corps?

Q3. Who is responsible for providing office and training facilities?

ANTICIPATED ANSWERS

A1. It is the responsibility of the sponsor to organize fundraising activities in consultation with the corps CO.

A2. The sponsor.

A3. The sponsor.

END OF LESSON CONFIRMATION

QUESTIONS

Q1. What is a sponsor?

Q2. What support does the sponsor provide the corps?

Q3. How does the sponsor assist the CO?

ANTICIPATED ANSWERS

A1. With respect to a cadet corps, the organization or persons accepted by or on behalf of the Chief of Defence Staff to undertake jointly with the Canadian Forces and the supervisory sponsor (the Army Cadet League), responsibility for the organization and administration of the cadet corps.

A2. Answers will vary.

A3. Answers will vary.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

The sponsor of a cadet corps has a role and many responsibilities to fulfill, most importantly support and financial aid. Though they are not always seen, a dependable and reliable sponsor is key to the success of a cadet corps and each cadet should recognize their importance.

INSTRUCTOR NOTES/REMARKS

This lesson may be delivered by a member of the local sponsor.

REFERENCES

A0-040 2005-113124 D Cdts. (2005). *Memorandum of Understanding Between the DND and the Leagues*. Ottawa, ON: Department of National Defence.

A0-046 Scott, M (Ed.). (2003). Clarifying Civilian Roles in Cadet Corps and Squadrons. *Cadence: The Leadership Magazine of the Canadian Cadet Movement*, Issue 11, 30-32.

C2-063 Army Cadet League of Canada. (2007). *Army Cadet League of Canada*. Retrieved 9 March 2007, from http://www.armycadetleague.ca.

ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 4

EO M207.04 – IDENTIFY YEAR TWO CSTC TRAINING OPPORTUNITIES

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

A group discussion was chosen for TP1 as it allows the cadets to interact with their peers and share their experiences, opinions, and feelings about year two CSTC training opportunities.

An interactive lecture was chosen for TP2 to orient the cadets to year two CSTC training opportunities and to generate interest.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to identify year two CSTC training opportunities.

IMPORTANCE

It is important for cadets to identify year two CSTC training opportunities available to them because they must decide if and for which course they would like to apply.

Teaching Point 1 **Discuss the Specialty Areas for Year Two CSTC Training**

Time: 10 min Method: Group Discussion

BACKGROUND KNOWLEDGE

The point of the group discussion is to draw the following information from the group using the tips for answering/facilitating discussion and the suggested questions provided.

Write the specialty areas on a whiteboard/flipchart and discuss the activities associated within each area. Cadets may already know which area they would like to pursue and may already have a general idea of the activities.

LEADERSHIP/DRILL AND CEREMONIAL

Cadets will develop the knowledge and skills required to improve leadership abilities in a peer and small group (3–6 pers) setting. Activities include:

- leadership;
- confidence building;
- public speaking;
- problem solving; and
- ceremonial drill.

FITNESS AND SPORTS

Cadets will improve individual fitness and sport knowledge and skills. Activities include:

- rules and regulations of sports; and
- personal fitness.

MUSIC

Military Band

Cadets will develop music knowledge and skills. Activities include:

- music theory;
- playing an instrument as part of an ensemble;
- playing an instrument as part of a military band; and
- developing individual music skills.

Pipe and Drum

Cadets will develop music knowledge and skills. Activities include:

- music theory;
- playing an instrument as part of an ensemble;

- playing an instrument as part of a pipe and drum band; and
- developing individual music skills.

MARKSMANSHIP

Cadets will develop the knowledge and skills required to improve marksmanship abilities. Activities include:

- two-position shooting (standing and prone);
- recreational marksmanship;
- course level marksmanship competition; and
- biathlon.

EXPEDITION

Cadets will develop expedition knowledge and skills in a field setting. Activities include:

- adventure training activities;
- field training;
- trekking;
- navigation; and
- wilderness survival.

GROUP DISCUSSION

TIPS FOR ANSWERING/FACILITATING DISCUSSION

- Establish ground rules for discussion, e.g. everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Manage time by ensuring the cadets stay on topic.
- Listen and respond in a way that indicates you have heard and understood the cadet. This can be done by paraphrasing their ideas.
- Give the cadets time to respond to your questions.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer. Cadets must also have the option to pass if they wish.
- Additional questions should be prepared ahead of time.

SUGGESTED QUESTIONS:

Q1. Which summer training activities interest you?

Q2. Who is interested in applying for summer training this year? Why?

Q3. What specialty area are you interested in pursuing? Why?

Other questions and answers will develop throughout the group discussion. The group discussion should not be limited to only those suggested.

Reinforce those answers given and comments made during the group discussion, ensuring the teaching point has been covered.

CONFIRMATION OF TEACHING POINT 1

The cadets' participation in the group discussion will serve as the confirmation of this TP.

Teaching Point 2 **Describe Year Two CSTC Courses**

Time: 15 min Method: Interactive Lecture

A cadet who has attended one of these courses could be asked to speak about their experience during this TP.

COMMON COURSES

Basic Fitness and Sports. The aim of this course is to improve the cadets' knowledge and skills in individual fitness and sports.

Military Band – Basic Musician. The aim of this course is to introduce fundamental music knowledge and skills, and for the cadet to achieve a basic music level.

Pipe Band – Basic Pipe Band Musician. The aim of this course is to introduce fundamental music knowledge and skills, and for the cadet to achieve a basic music level.

ELEMENTAL COURSES

Basic Leadership. The aim of this course is to build on the knowledge and skills required for an emerging leader to complete a leadership assignment in a peer and small group setting and to provide course cadets with the opportunities to build self-confidence.

Basic Marksman. The aim of this course is to develop cadets' marksmanship knowledge and skills, allowing them to participate in a local marksmanship competition.

Basic Expedition. The aim of this course is to develop specialists with skills and subject matter knowledge required to successfully participate in a basic level expedition.

The only pre-requisite for a year two CSTC course is the successful completion of the Red Star training program.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. What courses are available for second year cadets?

Q2. What music level are cadets expected to achieve after completion of a year two music course?

Q3. What are two topics covered on the Basic Expedition Course.

ANTICIPATED ANSWERS

A1. Courses include:

- basic fitness and sports;
- basic military band musician;
- basic pipe band musician;
- basic marksman;
- basic leadership; and
- basic expedition.

A2. The cadet is expected to achieve a basic music level.

A3. Topics include adventure training activities, field training, trekking, navigation and wilderness survival.

END OF LESSON CONFIRMATION

The cadets' participation in the group discussion will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Summer training is a fun and exciting aspect of the Cadet Program. Training is offered in speciality areas that may not be accessible at the corps. Summer training centres are also a place to meet cadets and make new friends from different corps across Canada. It is important to be familiar with the summer training courses offered so cadets may apply for the course that interests them the most.

INSTRUCTOR NOTES/REMARKS

This EO should be conducted prior to the summer training application deadline of the applicable cadet detachment/region.

It is strongly recommended that the summer training application forms (CF 51) be completed during a training session after this EO has been conducted.

Corps may choose to devote two additional complementary training periods to expand this to a session that includes a parent information seminar.

REFERENCES

A0-010 CATO 11-03 D Cdts 2. (2006). *Cadet Program Mandate*. Ottawa, ON: Department of National Defence.

A2-027 CATO 42-01 D Cdts 4. (2005). *Summer Training Directive – Royal Canadian Army Cadets*. Ottawa, ON: Department of National Defence.

A2-031 CATO 40-01 D Cdts. (2003). *Army Cadet Program Outline*. Ottawa, ON: Department of National Defence.

ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 5

EO C207.01 – IDENTIFY THE RANK STRUCTURE OF THE ROYAL CANADIAN SEA AND AIR CADETS

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Copy the handout of ranks located at Annex D for each cadet.

Decide which activity will be completed in TP2 and gather all required materials.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TP1 to orient the cadets to the Sea and Air Cadet rank structure, to generate interest and to present basic material.

An in-class activity was chosen for TP2 as it is an interactive way to provoke thought and stimulate interest among cadets.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to identify the rank structure of the Royal Canadian Sea and Air Cadets.

IMPORTANCE

It is important for cadets to identify the rank structure of the Sea and Air Cadets to better understand the structure of other elements. Knowing the rank structure and insignia will help cadets address other cadets and gain an appreciation for the differences and similarities between Sea, Army and Air Cadets.

Teaching Point 1 **Identify the Sea and Air Cadet Rank Structure**

Time: 10 min Method: Interactive Lecture

BACKGROUND KNOWLEDGE

Both Sea and Air Cadet ranks have chevrons and crowns, just like Army Cadets. Sea Cadets also have an anchor and Air Cadets have a propeller on some of their insignia.

Distribute handouts of the cadet rank insignia at Annex D and briefly introduce the cadets to Sea and Air Cadet ranks.

CADET RANK INSIGNIA

ARMY CADET RANKS	SEA CADET RANKS	AIR CADET RANKS
CADET (NO BADGE)	ORDINARY SEAMAN (OS) (NO BADGE)	AIR CADET (AC) (NO BADGE)
PRIVATE (Pte) 	ABLE SEAMAN (AB) 	LEADING AIR CADET (LAC)
CORPORAL (Cpl) 	LEADING SEAMAN (LS) 	CORPORAL (Cpl)
MASTER CORPORAL (MCpl) 	MASTER SEAMAN (MS) 	FLIGHT CORPORAL (FCpl)
SERGEANT (Sgt) 	PETTY OFFICER SECOND CLASS (PO2) 	SERGEANT (Sgt)
WARRANT OFFICER (WO) 	PETTY OFFICER FIRST CLASS (PO1) 	FLIGHT SERGEANT (FSgt)
MASTER WARRANT OFFICER (MWO) 	CHIEF PETTY OFFICER SECOND CLASS (CPO2) 	WARRANT OFFICER SECOND CLASS (WO2)
CHIEF WARRANT OFFICER (CWO) 	CHIEF PETTY OFFICER FIRST CLASS (CPO1) 	WARRANT OFFICER FIRST CLASS (WO1)

Note. Created by D Cdts 3, 2007, Ottawa ON: Department of National Defence.

Figure 7-5-1 Cadet Ranks

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. What does the rank insignia for a leading seaman look like?

Q2. What rank has two chevrons, an anchor and a crown?

Q3. What does the rank insignia for a petty officer first class look like?

Q4. What does the rank insignia for sergeant look like?

Q5. What is the highest rank an Air Cadet can obtain?

ANTICIPATED ANSWERS

A1. Two chevrons and an anchor.

A2. Master Seaman.

A3. A crown.

A4. Three chevrons.

A5. Warrant Officer First Class (WO1).

Teaching Point 2 **Conduct an Activity to Familiarize Cadets With the Sea and Air Cadet Rank Structure**

Time: 15 min Method: In-class Activity

Conduct only one of the following activities.

ACTIVITY

OBJECTIVE

The objective of this twister activity is to become familiar with Sea and Air Cadet ranks.

RESOURCES

- Sea and Air Cadet rank insignia located at Annex E;
- Actions located at Annex F;
- Tape; and
- Two bags, hats or containers.

ACTIVITY LAYOUT

The floor of ranks must be set up and the bag of actions for the cadets to take must be ready.

To set up the floor of ranks for this twister activity:

1. make two copies of the insignia located at Annex E; and
2. tape the ranks on the floor in a four by seven rectangle, ensuring that the same ranks are not placed together.

To make the bags of actions:

1. make a copy of the actions located at Annex F;
2. cut out the actions;
3. divide the actions into two groups – body parts and ranks;
4. fold the pieces of paper; and
5. place the names of body parts in one bag and the ranks in the other.

ACTIVITY INSTRUCTIONS

1. Divide the cadets into groups of 3–6 cadets.
2. Decide the amount of time each group may have to complete the activity. For example, if there are two groups, each group will have approximately five minutes. If there are three groups, each group will have approximately three to four minutes.
3. If possible, assign two or three cadets to assist in judging.
4. Have the first group place themselves around the floor of ranks.
5. Pick a body part and a rank (action) out of each bag, hat or container and read them aloud (e.g. left hand – able seaman).
6. Have the cadets carry out the action (e.g. put their left hand on an able seaman rank).
7. Replace the paper into the appropriate bag, hat or container.
8. Pick another action, read aloud and have the cadets complete it.
9. If any portion of the cadet's body touches the floor or if they do not complete the proper movement, they are eliminated and must leave the rank floor.
10. Once all the cadets have been eliminated from the first group, start the second group, following the same steps.
11. Continue until all cadets have had a chance to participate in the activity.

If any cadet does not want to participate in this activity, he or she can be a judge.

Have extra tape available in case the ranks slip around on the floor.

SAFETY

- Cadets shall remove their shoes prior to completing this activity.
- This activity shall be stopped immediately if there is any horseplay.

ACTIVITY

OBJECTIVE

The objective of this activity is to become familiar with Sea and Air Cadet ranks.

RESOURCES

- Paper copies of each rank insignia (use as many ranks as the number of cadets in the class. If there are more than fourteen cadets, there can be more than one cadet with the same rank). Ranks are located at Annex E, and
- Tape.

ACTIVITY LAYOUT

Cut out ranks, ensuring there is one for each cadet.

ACTIVITY INSTRUCTIONS

1. Tape a rank to the back of each cadet (the cadet does not get to see the rank that is on their back). Cadets should not talk while this is being done.
2. Have the cadets walk around and ask other cadets yes/no questions to determine what rank they are wearing. For example, the cadet may ask “Do I have two chevrons?” The cadet has to determine from the answers what rank they are. Cadets may not ask any questions that have specific rank names, such as “Am I a Leading Seaman?”
3. There can only be one question asked to each of the other cadets to determine what rank they are. Cadets will move from cadet to cadet until they have determined the rank they are.
4. Once cadets have determined what rank they are, they will gather with any other cadets who are the same rank, if there are any.
5. After three minutes, have the cadets present what rank they think they are based on the information they have received. For example, if a group has determined they have an Air Cadet rank with only two chevrons, they would present themselves as an Air Cadet corporal.

SAFETY

N/A.

ACTIVITY

OBJECTIVE

The objective of this matching activity is to become familiar with Sea and Air Cadet ranks.

RESOURCES

Matching cards of Sea and Air Cadet rank insignia located at Annex G.

ACTIVITY LAYOUT

Cut out one set of matching cards of Sea and Air Cadet ranks for each group of cadets.

ACTIVITY INSTRUCTIONS

1. Divide the cadets into groups of two or three.
2. Distribute a set of matching cards of Sea and Air Cadet ranks to each group.
3. Have the cadets match the title to the badge for each rank.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 2

The cadets' participation in the in-class activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in the in-class activity in TP2 will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Being able to identify the ranks of the Sea and Air Cadets will make it easier to understand the ranks worn on their uniforms. Cadets may gain an appreciation for the differences and similarities between Sea, Army and Air Cadets.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

A1-003 A-CR-005-001/AG-001 D Cdts 3. (Draft). *Royal Canadian Sea Cadets Dress Instructions*. Ottawa, ON: Department of National Defence.

A3-004 CATO 51-02 D Cdts 4. (2007). *Air Cadet Promotions*. Ottawa, ON: Department of National Defence.

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COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 6

EO C207.02 – VISIT A LOCAL CADET CORPS OR SQUADRON

Total Time:	90 min

No instructional guide is provided for this EO.

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ACTIVITY

A Full Value Contract (FVC) can take many forms. Examples of FVCs are located at Annex B.

Time: 30 min

OBJECTIVE

The objective of this activity is to develop a corps FVC which will help create a positive environment for each individual member and the entire group.

RESOURCES

Depending on the type of FVC that will be constructed, the following resources may be required:

- flipchart paper;
- cardboard;
- markers;
- pens/pencils;
- ruler;
- glue;
- scissors;
- coloured paper; and
- magazines, etc.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Using flipchart paper to record ideas, brainstorm with the cadets by asking what values and qualities the group should adhere to in order to achieve goals.
2. Ensure all cadets have the same understanding of all the values and qualities noted.
3. Using flipchart paper to record ideas, have the cadets brainstorm a list of group behaviours that can help the group achieve goals.
4. Ensure all cadets have the same understanding of all the behaviours noted.
5. As an entire group, have the cadets represent their values and qualities by completing a FVC.

SAFETY

N/A.

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EXAMPLES OF FULL VALUE CONTRACTS

Full Value Contract: The Circle

Draw a wheel. At the centre of the wheel, draw a circle. This circle represents the individuals, the group, and the goals.

Draw rays from this circle. On these rays, write each selected value.

The outer circle symbolizes that the group is one and that all members go toward the same direction. Without the respect of the chosen values by everyone, the group could not make a wheel, and could not walk toward the same goals.

Note. Created by D Cdts 3, 2007, Ottawa ON: Department of National Defence

Figure 7B-1 The Circle

Full Value Contract: The Village

Draw a frame on cardboard or flipchart paper.

Have the cadets think about values, qualities, and behaviours that make them feel safe and respected, both as an individual and in a group setting.

Every cadet must select their most important value, quality, or behaviour.

Have each cadet represent what they chose by drawing or writing it on a piece of paper.

Once completed, have each cadet glue their drawing or writing inside the frame (village) and briefly explain to the others why that choice was made.

Repeat the activity by including something that will prevent the group from reaching their goals and will destroy the running of the village.

Once again, have each cadet explain why they chose their representation. Next, each cadet will glue their drawing or writing outside the village.

Once the process is completed, mention every value selected by the cadets (inside and outside the village) and ask if everyone agrees. The cadets must understand that they are agreeing to respect each person's value, quality or behaviour in order for the cadet corps (village) to run properly and be a place where everyone will feel safe and respected.

After everyone has agreed, everyone (staff and cadets) will sign the village.

Full Value Contract: The Five-Finger Contract

Each finger will represent a value that will help the group members feel secure, respected, and part of the group.

The five fingers on the hand represent the following:

- the little finger = safety,
- the ring finger = commitment,
- the middle finger = respect of others,
- the index finger = taking responsibilities, and
- the thumb = agreement to work toward the group's goals.

On a piece of cardboard or flipchart paper, write the representations of the fingers. Discuss the elements with the group so that all cadets have a clear understanding. Each cadet must agree that these five elements are important for group members to feel secure, respected, and part of the group.

Each cadet will draw his/her hand on a sheet of paper and write inside each finger the element associated with each.

Each cadet will sign their hand and glue it on bristol board or flipchart paper. The set of the group's hands represents everyone's commitment to each other.

Note. Created by D Cdts 3, 2007, Ottawa ON: Department of National Defence

Figure 7B-2 The Five Finger Contract

Full Value Contract: The Being

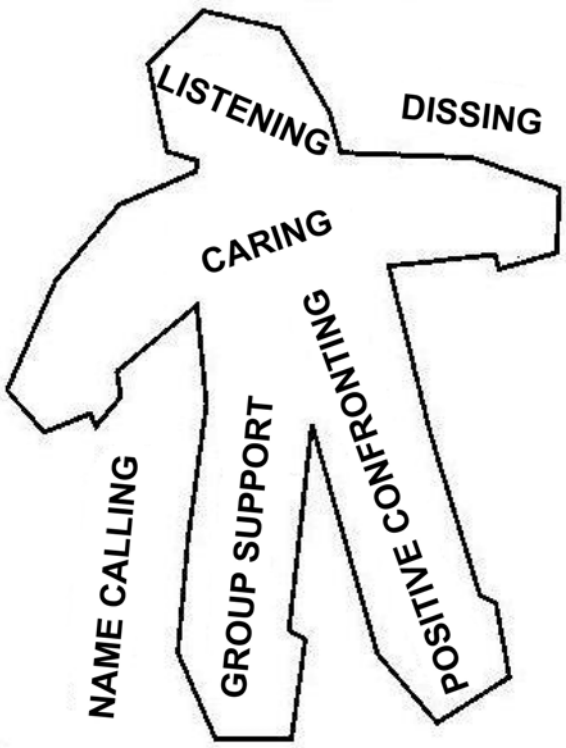
Draw the outline of a cadet's body on a two pieces of flipchart paper, taped together.

Inside the outline, have the cadets draw or write the behaviours, qualities or values that will make the environment safe and a place where everyone is respected.

Outside the outline, have the cadets draw or write the behaviours, qualities or values that will prevent the environment from being safe and a place where everyone is respected.

Cadets must agree on the meaning of each word and explain their choices.

When completed, have all cadets sign the being.



Henton, M., Adventure in the Classroom: Using Adventure to Strengthen Learning and Build a Community of Life-long Learners, Kendall Hunt Publishing (p. 74)

Figure 7B-3 The Being

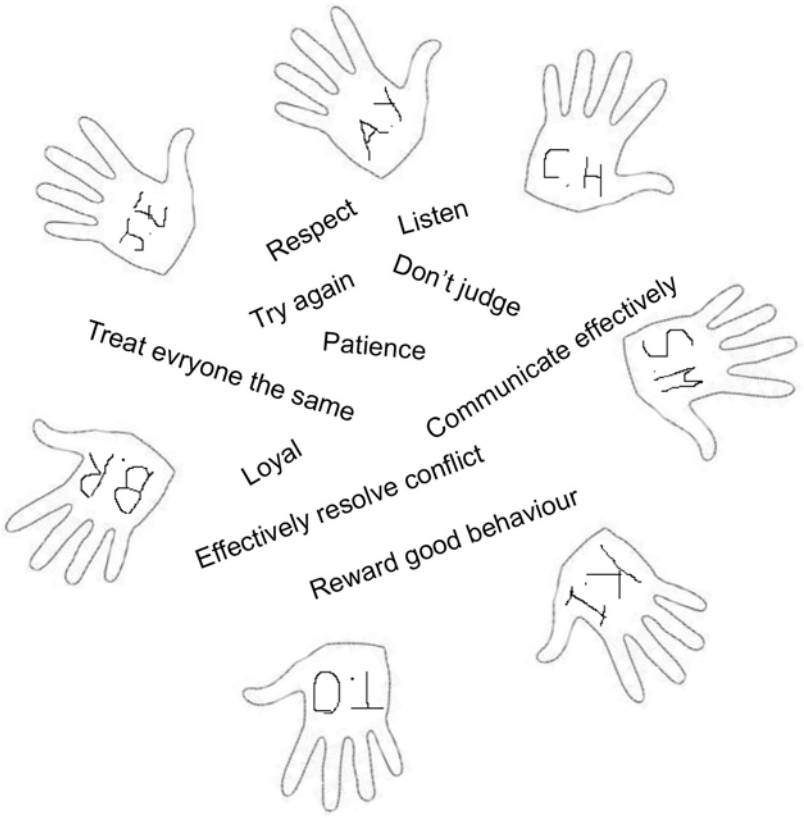
Full Value Contract: The Chain of Hands

Have the cadets write a list of words and sentences that describe how they would like to be treated and how they will treat the other group members in order to feel safe and respected.

From this list, have the cadets select the 10 most important for the group.

On a sheet of flipchart paper (two may be required), have the cadets draw their hands around the sheet. Write the 10 selected words or sentences in the middle of the sheet.

Everyone must sign his or her own hand.



Note. Created by D Cdts 3, 2007, Ottawa ON: Department of National Defence.

Figure 7B-4 The Chain of Hands

Full Value Contract: What do I need? What can I give?

Give two pieces of different coloured paper to each cadet.

Ask them to think about what they need in order to feel secure and respected in the group.

Have the cadets write the most important item they need on one of the pieces of paper.

Now, ask them to think about what they could provide to the group in order to have other team members feel safe and respected in the group.

On the remaining piece of paper, they must write the most important one.

When done writing on both pieces of paper, have the cadets present what they wrote to the group.

Once everyone has explained what they need and what they can provide, glue those pieces of papers on cardboard or flipchart paper, making sure that both categories are split up.

Ask the cadets if they need more explanations and then have everyone sign.

SUMMARY OF SIGNIFICANT EVENTS

Date	Event
1861	Formation of drill associations began.
1879	Distinction between high school cadets and adult militiamen became clear with Militia General Order 18.
1887	The drill associations had detailed regulations governing their formation and activities.
1898	The term “Cadet Corps” appeared for the first time.
1898	A condition that corps instructors must be a member of the school teaching staff, instead of an instructor from the local militia unit, was adopted.
1899	Militia General Orders 60 and 61 authorized cadet corps to be attached to militia units.
1904	The current numbering system was established to identify corps in the sequence of their formation.
1908	The first cadre of commissioned officers called the Cadet Services of Canada was formed. This cadre consisted of school teachers.
1910	Lord Strathcona deposited $500 000 in a trust to develop citizenship and patriotism in school cadets through physical training, rifle shooting, and military drill.
1928	“Regulations for the Cadet Services of Canada” directed Army Cadet leaders to develop patriotism and good citizenship in their cadets.
1942	His Majesty King George VI conferred the title “Royal” on the Royal Canadian Army Cadets.
1956	Her Majesty Queen Elizabeth authorized a new design for the RCAC crest, including the motto “ACER ACERPORI”, “As the maple, so the sapling”.
01-Feb-68	Unification of the Canadian Armed Forces. The Cadet Services of Canada became the Cadet Instructors List (CIL) and the Directorate of Cadets (D Cdts) was formed at National Defence Headquarters (NDHQ).
01-Apr-71	The Army Cadet League of Canada was formed.
30-Jul-75	Parliament passed Bill C-16 which amended legislation by changing the word “boys” to “persons”, thereby permitting females to become members of the RCAC.
1977	The dark green uniform was adopted.
20-Aug-85	His Royal Highness Prince Philip presented the Royal Canadian Army Cadet Banner, the Royal Canadian Army Cadet Pipe Banner and the Royal Canadian Army Cadet Trumpet Banner at the National Army Cadet Camp in Banff, Alberta.

Date	Event
1987	The enrolment age was returned to 12 years old.
1994	The Cadet Instructors List (CIL) became the Cadet Instructor Cadre (CIC), which allowed the use of a bilingual format for both the title and the acronym.
1999	The Army Cadet Program was updated with emphasis on “adventure and challenge”.
2009	The Army Cadet Program was updated to its modern form.

CADET RANKS

ARMY CADET RANKS	SEA CADET RANKS	AIR CADET RANKS
CADET (NO BADGE)	ORDINARY SEAMAN (OS) (NO BADGE)	AIR CADET (AC) (NO BADGE)
PRIVATE (Pte) 	ABLE SEAMAN (AB) 	LEADING AIR CADET (LAC)
CORPORAL (Cpl) 	LEADING SEAMAN (LS) 	CORPORAL (Cpl)
MASTER CORPORAL (MCpl) 	MASTER SEAMAN (MS) 	FLIGHT CORPORAL (FCpl)
SERGEANT (Sgt) 	PETTY OFFICER SECOND CLASS (PO2) 	SERGEANT (Sgt)
WARRANT OFFICER (WO) 	PETTY OFFICER FIRST CLASS (PO1) 	FLIGHT SERGEANT (FSgt)
MASTER WARRANT OFFICER (MWO) 	CHIEF PETTY OFFICER SECOND CLASS (CPO2) 	WARRANT OFFICER SECOND CLASS (WO2)
CHIEF WARRANT OFFICER (CWO) 	CHIEF PETTY OFFICER FIRST CLASS (CPO1) 	WARRANT OFFICER FIRST CLASS (WO1)

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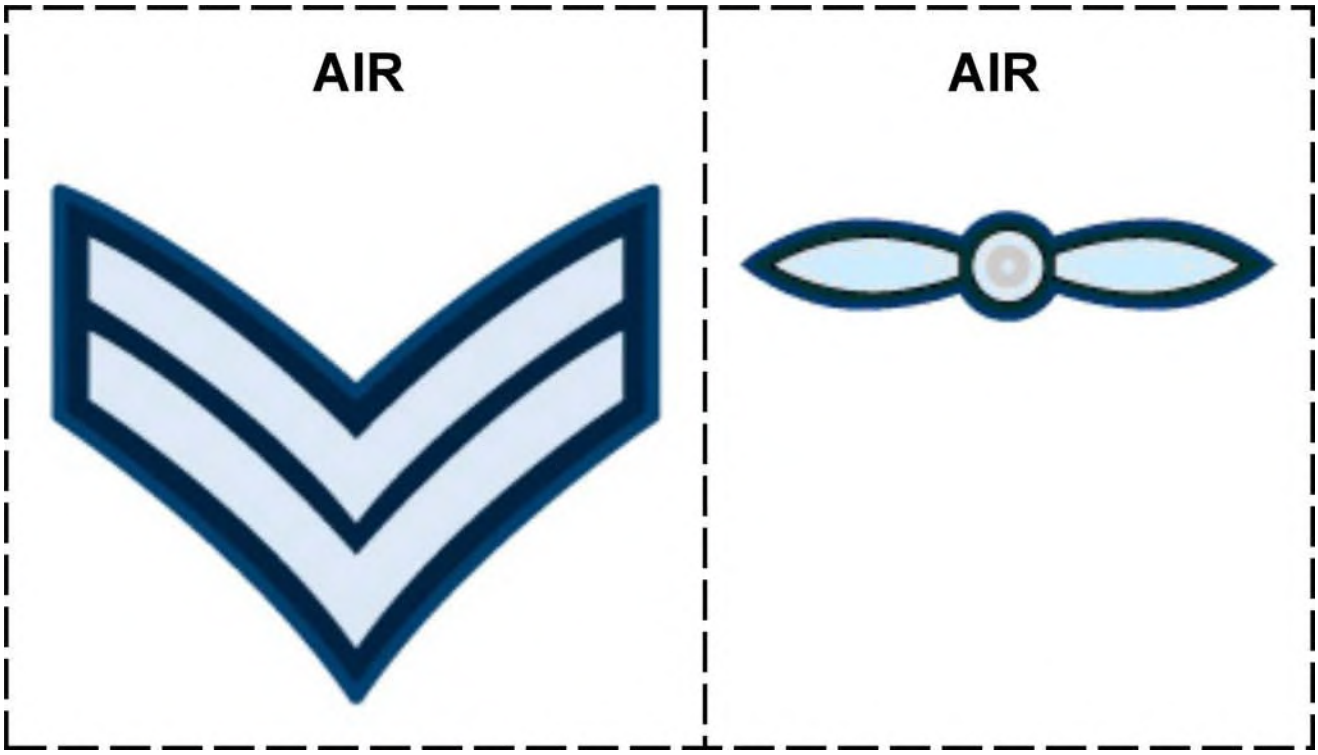
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ACTIONS

LEFT HAND	CHIEF PETTY OFFICER SECOND CLASS
RIGHT HAND	CHIEF PETTY OFFICER FIRST CLASS
LEFT FOOT	LEADING AIR CADET
RIGHT FOOT	CORPORAL
ABLE SEAMAN	FLIGHT CORPORAL
LEADING SEAMAN	SERGEANT
MASTER SEAMAN	FLIGHT SERGEANT
PETTY OFFICER SECOND CLASS	WARRANT OFFICER SECOND CLASS
PETTY OFFICER FIRST CLASS	WARRANT OFFICER FIRST CLASS

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MEMORY MATCH CARDS

AIR CADET (AC)	AIR CADET (AC)
LEADING AIR CADET (LAC)	
CORPORAL (Cpl)	
FLIGHT CORPORAL (FCpl)	
SERGEANT (Sgt)	

FLIGHT SERGEANT (FSgt)	
WARRANT OFFICER SECOND CLASS (WO2)	
WARRANT OFFICER SECOND CLASS (WO1)	
ORDINARY SEAMAN (OS)	(NO INSIGNA)
ABLE SEAMAN (AB)	

LEADING SEAMAN (LS)	
MASTER SEAMAN (MS)	
PETTY OFFICER SECOND CLASS (PO2)	
PETTY OFFICER FIRST CLASS (PO1)	
CHIEF PETTY OFFICER SECOND CLASS (CPO2)	

CHIEF PETTY OFFICER FIRST CLASS (CPO1)	

CHAPTER 8

PO 208 – EXECUTE DRILL AS A MEMBER OF A SQUAD

COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 1

EO M208.01 – EXECUTE LEFT AND RIGHT TURNS ON THE MARCH

Total Time: 60 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Select the most effective squad formation for the instruction of this lesson. A squad may be in single rank, hollow-square, or semi-circle. Ensure that all cadets are positioned to hear all explanations and see all demonstrations.

Assistant instructors may be required if the squad is broken down into smaller sections for movements that require extra practice.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

Demonstration and performance was chosen for this lesson as it allows the instructor to explain and demonstrate turning on the march while providing an opportunity for the cadets to practice turning on the march under supervision.

Develop and use a vocabulary of short, concise words to impress on the platoon that the movements must be performed smartly. For example, the words “crack”, “drive”, “seize”, and “grasp” suggest the degree of smartness required. Profanity or personal sarcasm will never be used.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to execute left and right turns on the march.

IMPORTANCE

It is important for cadets to perform drill movements at a competent level at the cadet corps and at the CSTC. Cadets moving together as one promotes discipline, alertness, precision, pride, steadiness, and cohesion, which in turn helps develop the basis of teamwork.

Proper drill movements should be combined with a professional demeanour throughout the period of instruction.

Check for faults and correct them immediately when they occur.

Each TP is to be conducted as follows:

1. Have cadets fall in, in an effective squad formation (e.g. hollow square).
2. Explain and demonstrate each of the movements given, as time allows.
3. Give cadets time to practice each movement on their own after the demonstration.
4. After all movements have been demonstrated and practiced, give commands and have the cadets perform them as a squad.

Capitalization indicates the words of command for each movement.

When bending the knee, it is raised 15 cm off the ground.

Cadence is to be maintained when completing movements.

Teaching Point 1 **Explain, Demonstrate, and Have Cadets Practice Left Turn on the March**

Time: 25 min Method: Demonstration and Performance

Left turn on the march is given as the right foot is forward and on the ground.

LEFT TURN ON THE MARCH

In quick time, on the command LEFT – TURN, the cadets shall:

1. on the first movement, take one half pace forward with the left foot, with the right arm swung forward and the left arm to the rear;
2. on the second movement:
   a. cut the arms to the side as in the position of attention;
   b. bend the right knee;

c. use the momentum of the knee to force the shoulders 90 degrees to the left to face the new direction, while simultaneously pivoting on the ball of the left foot 90 degrees to the left;

d. straighten the right leg as in the position of attention;

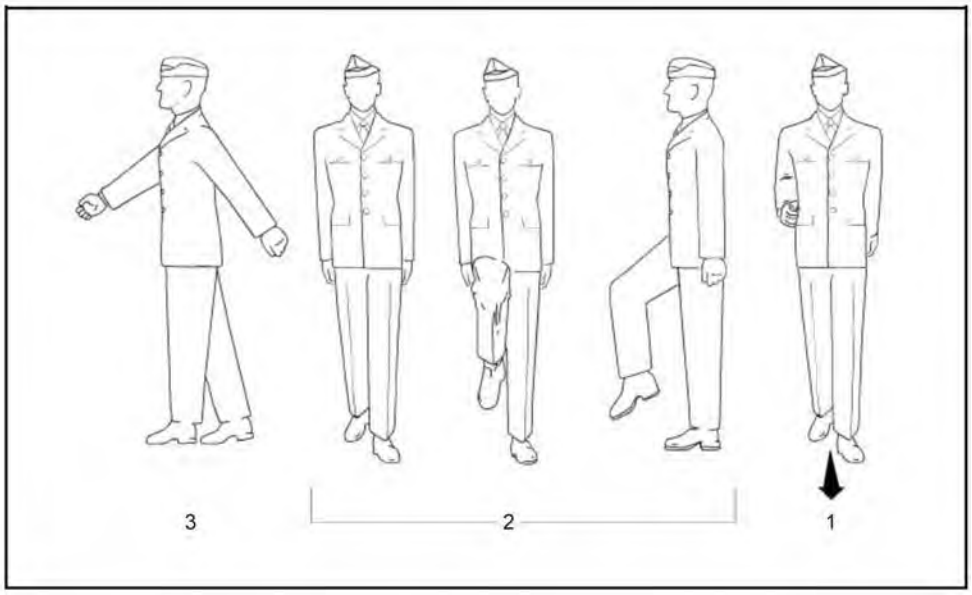
e. shoot the left foot forward one half pace with the toe just clear of the ground;

f. keep the body and head up; and

g. keep the arms, body, and head steady; and

3. on the third movement, take a half pace with the left foot and continue to march (swinging the arms).

Timing for this movement is “check, pivot, left, right, left”.

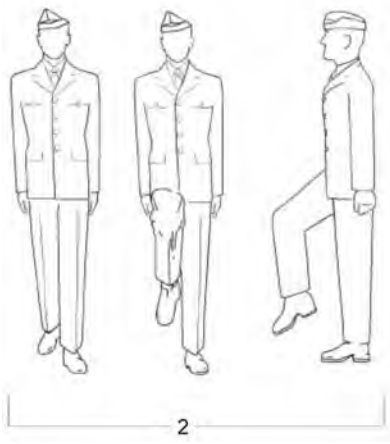


A-PD-201/PT-000, The Canadian Forces Manual of Drill and Ceremonial (p. 3-30)

Figure 8-1-1 Left Turn in Quick Time

A-PD-201/PT-000 (p. 3-30)

Figure 8-1-2 Left Turn – Movement One



A-PD-201/PT-000 (p. 3-30)

Figure 8-1-3 Left Turn – Movement Two

A-PD-201/PT-000 (p. 3-30)

Figure 8-1-4 Left Turn – Movement Three

CONFIRMATION OF TEACHING POINT 1

Cadets will execute left turns on the march as a squad.

Teaching Point 2 **Explain, Demonstrate, and Have Cadets Practice Right Turn on the March**

Time: 25 min Method: Demonstration and Performance

Right turn on the march is given as the left foot is forward and on the ground.

RIGHT TURN ON THE MARCH

In quick time, on the command RIGHT – TURN, the cadet shall:

1. on the first movement, take one half pace forward with the right foot, with the left arm forward and the right arm to the rear;
2. on the second movement:
   a. cut the arms to the side as in the position of attention;
   b. bend the left knee;
   c. use the momentum of the knee to force the shoulders 90 degrees to the right to face the new direction, while simultaneously pivoting on the ball of the right foot 90 degrees to the right;
   d. straighten the left leg as in the position of attention;
   e. shoot the right foot forward one half pace with the toe just clear of the ground;
   f. keep the body and head up; and
   g. keep the arms, body, and head steady; and
3. on the third movement, take a half pace with the right foot and continuing to march (swinging the arms).

Timing for this movement is “check, pivot, right, left, right”.

CONFIRMATION OF TEACHING POINT 2

Cadets will execute right turns on the march as a squad.

END OF LESSON CONFIRMATION

The confirmation of this lesson shall consist of the cadets, as a squad, executing left and right turns on the march and shall emphasize any movements that cadets had difficulty with during the class.

Practice the complete movements with:

- the **instructor** calling the time;
- the **squad** calling the time; and
- the squad **judging** the time.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Drill develops many qualities through self-discipline and practice. Drill that is well-rehearsed, closely supervised and precise is an exercise in obedience and alertness that creates teamwork among members.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

A0-002 A-PD-201-000/PT-000 Directorate of History and Heritage 3-2. (2001). *The Canadian Forces Manual of Drill and Ceremonial.* Ottawa, ON: The Department of National Defence.

COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 2

EO M208.02 – FORM SINGLE FILE FROM THE HALT

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Select the most effective squad formation for the instruction of this lesson. A squad may be in single rank, hollow-square, or semi-circle. Ensure that all cadets are positioned to hear all explanations and see all demonstrations.

Assistant instructors may be required if the squad is broken down into smaller sections for movements that require extra practice.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

Demonstration and performance was chosen for this lesson as it allows the instructor to explain and demonstrate the skill the cadet is expected to acquire while providing an opportunity for the cadets to practice forming single file from the halt under supervision.

Develop and use a vocabulary of short, concise words to impress on the platoon that the movements must be performed smartly. For example, the words “crack”, “drive”, “seize”, and “grasp” suggest the degree of smartness required. Profanity or personal sarcasm will never be used.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to form single file from the halt.

IMPORTANCE

It is important for cadets to perform drill movements at a competent level at the cadet corps and at the CSTC. Cadets moving together as one promotes discipline, alertness, precision, pride, steadiness, and cohesion, which in turn helps develop the basis of teamwork.

Proper drill movements should be combined with a professional demeanour throughout the period of instruction.

Check for faults and correct them immediately when they occur.

This lesson is not broken down into movements. Demonstrate and allow time for the cadets to practice, in a variety of positions.

Capitalization indicates the words of command for each movement.

Cadence is to be maintained when completing these movements.

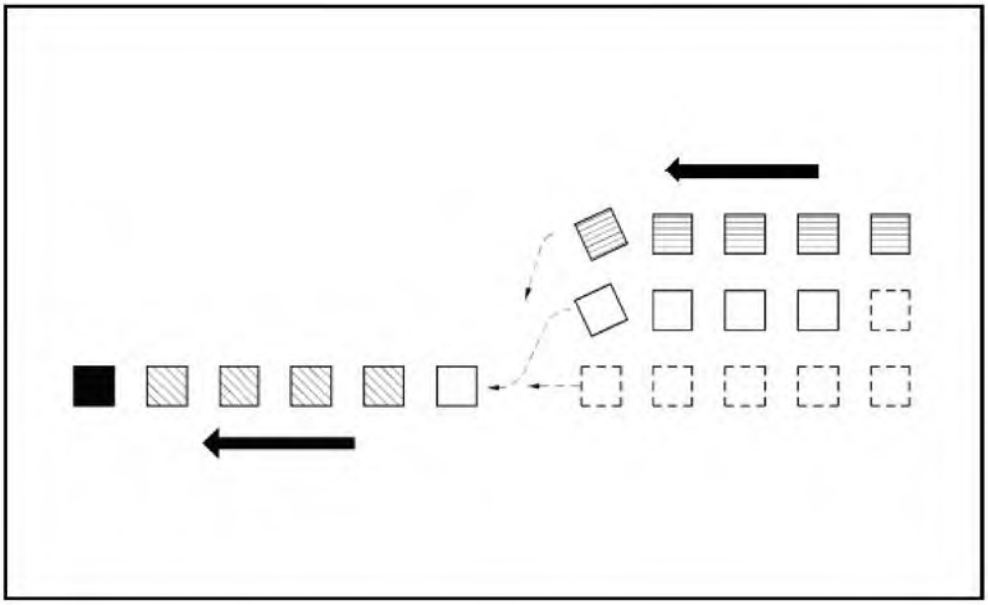
Teaching Point 1 **Explain, Demonstrate, and Have Cadets Practice Forming Single File From the Halt as a Squad in Threes**

Time: 15 min Method: Demonstration and Performance

FORM SINGLE FILE FROM THE HALT AS A SQUAD IN THREES

On the command SINGLE FILE FROM THE LEFT (RIGHT), QUICK – MARCH, the movement will be completed by:

1. the directing flank marching off in single file in quick time; and
2. the remaining cadets marking time. The markers of the other two ranks executing a left (right) incline and leading off when the file on their left (right) is clear.



A-PD-201-000/PT-000 (p. 3-30)

Figure 8-2-1 Squad in Threes Forming Single File

CONFIRMATION OF TEACHING POINT 1

Practice the movement in squad formation. Cadets should have the opportunity to practice the movement from different positions in the squad.

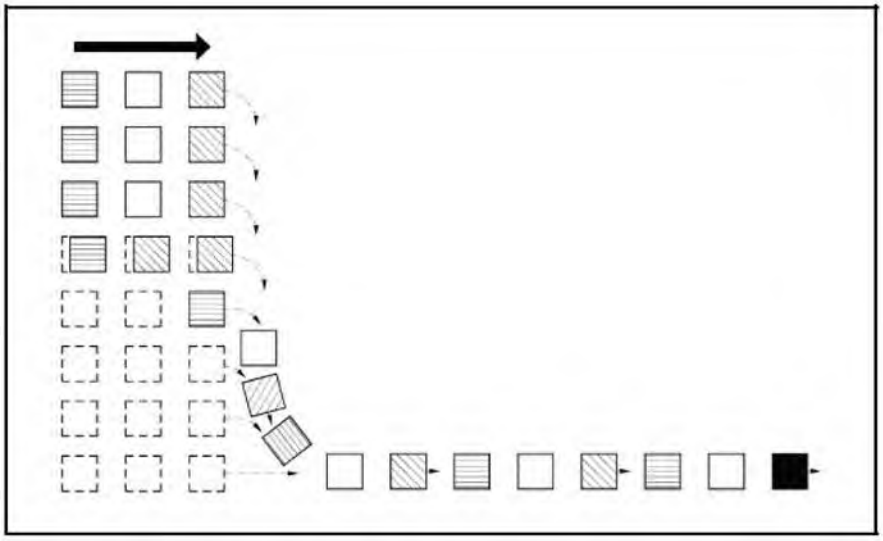
Teaching Point 2 **Explain, Demonstrate, and Have Cadets Practice Forming Single File From the Halt as a Squad in Line**

Time: 10 min Method: Demonstration and Performance

FORM SINGLE FILE FROM THE HALT AS A SQUAD IN LINE

On the command SINGLE FILE FROM THE LEFT (RIGHT), QUICK – MARCH, the movement will be completed by:

1. the file on the directing flank marching forward in single file in quick time; and
2. the remaining cadets marking time. The markers of the other two ranks directing the remaining cadets by wheeling in single file, following the file on their left (right) when clear.



A-PD-201-000/PT-000 (p. 3-30)

Figure 8-2-2 Squad in Line Forming Single File

CONFIRMATION OF TEACHING POINT 2

Practice the movement in squad formation. Cadets should have the opportunity to practice the movement from different positions in the squad.

END OF LESSON CONFIRMATION

The confirmation of this lesson shall consist of the cadets, as a squad, forming single file from the halt as a squad in threes and in line, and shall emphasize any aspects the cadets experienced difficulty with during the class.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Drill develops many qualities through self-discipline and practice. Drill that is well-rehearsed, closely supervised and precise is an exercise in obedience and alertness that creates teamwork among members.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

A0-002 A-PD-201-000/PT-000 Directorate of History and Heritage 3-2. (2001). *The Canadian Forces Manual of Drill and Ceremonial.* Ottawa, ON: The Department of National Defence.

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COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 3

EO C208.01 – PRACTICE CEREMONIAL DRILL AS A REVIEW

Total Time:	60 min

There is no Instructional Guide provided for this EO. Refer to A-PD-201-000/PT-001.

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COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 4

EO C208.02 – EXECUTE DRILL WITH ARMS

Total Time:	240 min

There is no Instructional Guide provided for this EO. Refer to A-CR-CCP-053/PT-001, *Royal Canadian Sea Cadets Manual of Drill and Ceremonial*.

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CHAPTER 9

PO 211 – PARTICIPATE IN COMPETITIVE SUMMER BIATHLON ACTIVITIES

COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 1

EO C211.01 – IDENTIFY CIVILIAN BIATHLON OPPORTUNITIES

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for this lesson to orient the cadets to civilian biathlon opportunities and to generate interest.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to identify civilian biathlon opportunities.

IMPORTANCE

It is important for cadets to identify civilian biathlon opportunities because they may choose to pursue the sport of biathlon outside the Cadet Program.

Teaching Point 1 **Introduce Local, Provincial/Territorial, National, and International Biathlon Training Opportunities**

Time: 10 min Method: Interactive Lecture

There are many training opportunities for biathletes at the local, provincial/territorial, national, and international levels. These training opportunities include clinics and camps ranging from weekend programs for basic and intermediate training, to year round advanced training. Training development clinics offered include coaching, race opportunities and training programs for all ranges in skill levels from the beginner to the advanced competitor training at the national team level.

LOCAL

Local ski resorts/clubs may offer a selection of biathlon programs. Biathlon Bears is a community coaching program offered across Canada. The Biathlon Bears program is open to novices and the training is tailored to the athlete's skill level. This program offers training to develop both skiing and marksmanship skills. There is a ranking structure in the program. As skills are learned and mastered, the biathlete progresses to the next Biathlon Bear level.

For examples of local biathlon training opportunities, contact the local ski resort/club.

PROVINCIAL/TERRITORIAL

Divisions of Biathlon Canada are located within many of the provinces/territories. These division offices run training and offer support to the local resorts/clubs.

For examples of provincial/territorial biathlon training opportunities, contact the division office/Website.

NATIONAL

Biathlon Canada is the governing body for the sport of biathlon within Canada. There are two national biathlon training centres located in Canmore, Alberta and Valcartier, Quebec. These centres offer training to the national biathlon teams.

For examples of national biathlon training opportunities, contact Biathlon Canada (www.biathloncanada.ca).

INTERNATIONAL

The International Biathlon Union (IBU) is the governing body for the sport of biathlon internationally. There are biathlon training centres located across the globe. National training centres offer training to athletes who will be competing internationally. The international training centres allow high performance biathletes to train in various

geographical regions where the elevation above sea level, and the changes in the oxygen density, create different training demands on the biathlete. This allows the biathlete to adapt to the environmental conditions prior to the competition, thus increasing their expected performance outcome.

For examples of international biathlon training opportunities, contact the International Biathlon Union (www.biathlonworld.com).

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. Who offers biathlon training at the local level?

Q2. Where are the two Canadian national biathlon training centres located?

Q3. What is the name of the organization that governs biathlon internationally?

ANTICIPATED ANSWERS

A1. Local ski resorts/clubs.

A2. Canmore, Alberta and Valcartier, Quebec.

A3. The International Biathlon Union (IBU).

Teaching Point 2 **Introduce Local, Provincial/Territorial, National, and International Competitive Biathlon Opportunities**

Time: 10 min Method: Interactive Lecture

LOCAL

Local ski resorts/clubs offer competitive events across Canada from beginner to advanced racing opportunities.

For examples of local competitive biathlon opportunities, contact the local ski resort/club.

PROVINCIAL/TERRITORIAL

The division offices located within many Canadian provinces/territories offer regional competitive biathlon events. Many of these events require advancement through a ranking process. There are race qualifications that the competitors must meet, which may include, but are not limited to, age, gender, resort/club or team standings, or previous race standings (if in a series of races). Not all races lead to a higher level, they may only be a participatory race.

For examples of provincial/territorial competitive biathlon opportunities, contact the division office/Website.

NATIONAL

National competitive biathlon events offered through Biathlon Canada include:

- Canadian Championships; and
- Canada Games.

For examples of national competitive biathlon opportunities, contact Biathlon Canada (www.biathloncanada.ca).

INTERNATIONAL

International competitive biathlon events offered in conjunction with the IBU include:

- Olympic Games;
- World Cup;
- World Championship;
- European Cup; and
- Europa Cup.

For examples of international competitive biathlon opportunities, contact the International Biathlon Union (www.biathlonworld.com).

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. What types of criteria must a biathlete meet to proceed to a provincial/territorial competition?

Q2. Name one national competitive biathlon event.

Q3. Name two international competitive biathlon events.

ANTICIPATED ANSWERS

A1. Age, gender, resort/club or team standings, or previous race standings (if in a series of races).

A2. National competitive biathlon events offered through Biathlon Canada include:

- Canadian Championships; and
- Canada Games.

A3. International competitive biathlon events offered in conjunction with the IBU include:

- Olympic Games;
- World Cup;
- World Championship;
- European Cup; and
- Europa Cup.

Teaching Point 3 **Identify Famous Biathletes Who Were Introduced to the Sport Through the Canadian Cadet Program**

Time: 5 min Method: Interactive Lecture

Biathletes who were introduced to the sport through the Canadian Cadet Program have seen Olympic glory. There are numerous ex-cadets who are successful on both the national and international scene. These biathletes include Myriam Bédard, Nikki Keddie, Martine Albert, and Jean-Philippe Le Guellec.

Jean-Philippe Le Guellec, from Shannon, Quebec, was introduced to the sport of biathlon through the Air Cadet Program. He won three gold medals at the 2007 Biathlon Canada Championships in Charlo, New Brunswick and participated in the 2006 Winter Olympics in Torino, Italy.

Myriam Bédard, from Ancienne-Lorrette, Quebec, was introduced to the sport of biathlon through the Army Cadet Program. She was the first Canadian athlete to win a World Cup biathlon event in 1991, and the first North American athlete to win an Olympic medal in the 1992 Winter Games at Albertville, France. She also won two gold medals at the 1994 Winter Olympics in Lillehammer, Norway. These were the first Olympic biathlon gold medals won by a North American biathlete. On 4 November 1998, Myriam Bédard was inducted into Canada's Sports Hall of Fame.

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

Q1. Name two famous biathletes who were introduced to the sport through the Canadian Cadet Program.

Q2. How many gold medals have been won by Jean-Philippe Le Guellec?

Q3. Myriam Bédard was introduced to the sport of biathlon through which element of the Cadet Program?

ANTICIPATED ANSWERS

A1. Myriam Bédard, Nikki Keddie, Martine Albert, and Jean-Philippe Le Guellec.

A2. Three.

A3. Army cadets.

END OF LESSON CONFIRMATION

QUESTIONS

Q1. What is the name of the training program offered at many ski resorts/clubs in Canada?

Q2. What is the name of the organization that governs the sport of biathlon in Canada?

Q3. Jean-Philippe Le Guellec was introduced to the sport of biathlon through which element of the Cadet Program?

ANTICIPATED ANSWERS

A1. Biathlon Bears.

A2. Biathlon Canada.

A3. Air cadets.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Biathlon is a fun and exciting activity that requires personal discipline. For those who choose to pursue this sport, there are numerous civilian training and competitive opportunities available at the local, provincial/territorial, national, and international levels.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

A0-042 Regional Cadet Support Unit (Central). (2007). *Cadet Marksmanship and Firearms Safety Program.* Retrieved 18 April 2007, from http://www.central.cadets.ca/events/biath_cadetmarksman_e.html.

C0-082 Biathlon Canada. (2007). *Biathlon Canada.* Retrieved 12 February 2007, from http://www.biathloncanada.ca.

C0-148 International Biathlon Union. (2007). *International Biathlon Union.* Retrieved 18 April 2007, from http://www.biathlonworld.com.

C0-149 Biathlon Canada. (2005). *Biathlon Bears: Community Coaching.* Ottawa, Ontario: Biathlon Canada.

C0-153 Library and Archives Canada. (2000). *Myriam Bédard.* Retrieved 30 April 2007, from http://www.collectionscanada.ca/women/002026-223-e.html.

COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 2

EO C211.02 – RUN ON ALTERNATING TERRAIN

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Ensure a first aid station is set up and a first aid attendant is available during the practical activities.

Photocopy the sample running schedule located at Annex B for each cadet.

Set up a running route on alternating terrain, depending on geographical location.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TP1 and TP5 to introduce cadets to running techniques on alternating terrain and on how to implement a running program.

A practical activity was chosen for TP2 to TP4 as it is an interactive way to introduce the cadets to running on alternating terrain in a safe and controlled environment.

INTRODUCTION

REVIEW

Review EO C111.02 (Run Wind Sprints), to include:

- preparing for summer biathlon activities; and
- running techniques.

OBJECTIVES

By the end of this lesson the cadet shall have run on alternating terrain.

IMPORTANCE

It is important for cadets to run on alternating terrain because it will be useful when participating in summer biathlon activities.

Teaching Point 1 **Describe Running Techniques for Alternating Terrain**

Time: 5 min Method: Interactive Lecture

POSTURE/BODY ALIGNMENT

Uphill Running

On gradual inclines, runners should run a bit harder than when on level terrain. On steep inclines runners should lift the knees and push off with every step.

Downhill Running

When running downhill the runner should lean into the hill and use short, quick strides.

FOOT POSITIONING

Distance runners should land on their heels or mid-foot and roll forward to the toe while running. Running up on the toes is the method used by sprinters, and if used for distance running, may cause the shins and calves to become tight.

ENDURANCE

To increase endurance, runners should increase distance, duration, and level of difficulty of their runs.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. How should your foot strike the ground when running distances?

Q2. What technique should be used when running up steep inclines?

Q3. What technique should be used when running downhill?

ANTICIPATED ANSWERS

A1. Distance runners should land on their heels or mid-foot and roll forward to the toe.

A2. Lift the knees and push off with every step.

A3. Lean into the hill and use short, quick strides.

Teaching Point 2 **Conduct a Warm-up Session Composed of Light Cardiovascular Excercises**

Time: 5 min Method: Practical Activity

The following information will be explained to the cadets during the warm-up activity.

PURPOSE OF A WARM-UP

A warm-up is composed of stretches and light cardiovascular exercises designed to:

- stretch the muscles;
- gradually increase respiratory action and heart rate;
- expand the muscles' capillaries to accommodate the increase in blood circulation which occurs during physical activity; and
- raise the muscle temperature to facilitate reactions in muscle tissue.

GUIDELINES FOR STRETCHING

The following guidelines should be followed while stretching to prepare for physical activity and to help prevent injury:

- Stretch all major muscle groups, including the back, chest, legs, and shoulders.
- Never bounce while stretching.
- Hold each stretch for 10 to 30 seconds to let the muscles release fully.
- Repeat each stretch two to three times.
- When holding a stretch, support the limb at the joint.
- Static stretching, which is stretching a muscle and holding it in position without discomfort for 10 to 30 seconds, is considered the safest method.
- Stretching helps to relax the muscles and improve flexibility, which is the range of motion in the joints.
- As a guide, allow 10 minutes to warm-up for every hour of physical activity.

The stretches chosen should focus on the areas of the body that will be used the most during the running activity.

ACTIVITY

OBJECTIVE

The objective of this warm-up activity is to stretch the muscles and perform light cardiovascular exercises to prepare the body for physical activity and to help prevent injuries.

RESOURCES

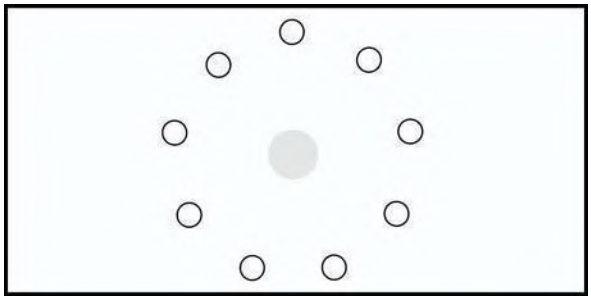
N/A.

ACTIVITY LAYOUT

N/A.

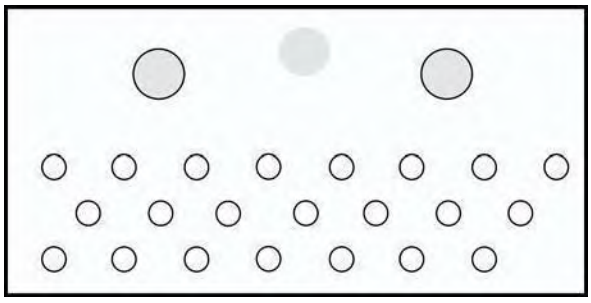
ACTIVITY INSTRUCTIONS

- Arrange the cadets in either a warm-up circle or in rows (as illustrated in Figures 9-2-1 and 9-2-2).



D Cdts 3, 2006, Ottawa, ON: Department of National Defence

Figure 9-2-1 Instructor in the Centre of a Warm-up Circle



D Cdts 3, 2006, Ottawa, ON: Department of National Defence

Figure 9-2-2 Instructor at the Front With Two Assistant Instructors

- Demonstrate before having the cadets attempt each stretch/light cardiovascular exercise.
- Assistant instructors can help demonstrate the exercises and ensure the cadets are performing them correctly.
- Have cadets perform each stretch/light cardiovascular exercise.

Light cardiovascular activities should be done to warm-up the muscles prior to stretching to avoid injury to or tearing of the muscles. For example, running on the spot for 30 seconds or performing jumping jacks should be performed prior to conducting the stretching activities located at Annex A.

SAFETY

- Ensure there are at least two arm lengths between the cadets so they can move freely.
- Ensure the cadets perform the stretches and light cardiovascular exercises in a safe manner, following the guidelines for stretching listed in this TP.

CONFIRMATION OF TEACHING POINT 2

The cadets' participation in the warm-up will serve as the confirmation of this TP.

Teaching Point 3 **Supervise While the Cadets Run on Alternating Terrain**

Time: 5 min Method: Practical Activity

ACTIVITY

OBJECTIVE

The objective of this activity is to have the cadets run on alternating terrain.

RESOURCES

- Area with alternating terrain that is large enough to conduct a run.
- A whistle.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

- Have the cadets run at a comfortable pace.
- Ensure that the run includes some uphill and downhill inclines, and that the cadets use the techniques described in TP1.

SAFETY

- Ensure a designated first aider and first aid kit are available.
- Ensure water is available for the cadets after they complete the run.

CONFIRMATION OF TEACHING POINT 3

The cadets' participation in the activity will serve as the confirmation of this TP.

Teaching Point 4 **Conduct a Cool-down Session Composed of Light Cardiovascular Exercises**

Time: 5 min Method: Practical Activity

The following information will be explained to the cadets during the cool-down activity.

PURPOSE OF A COOL-DOWN

A cool-down is composed of stretches and light cardiovascular exercises designed to:

- allow the body time to slowly recover from physical activity and to help prevent injury;
- prepare the respiratory system to return to its normal state; and
- stretch the muscles to help relax and restore them to their resting length.

The stretches chosen should focus on the areas of the body that were used the most during the running activity.

ACTIVITY

OBJECTIVE

The objective of the cool-down is to stretch the muscles and perform light cardiovascular exercises that allow the body time to recover from physical activity, and to prevent injury.

RESOURCES

N/A.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

- Arrange the cadets in either a warm-up circle or in rows (as illustrated in Figures 9-2-1 and 9-2-2).
- Demonstrate before having the cadets attempt each stretch/light cardiovascular exercise.
- Assistant instructors can help demonstrate the movements and ensure the cadets are performing them correctly.
- Have cadets perform each stretch/light cardiovascular exercise.

SAFETY

- Ensure there are at least two arm lengths between the cadets so they can move freely.

- Ensure the cadets perform the stretches and light cardiovascular exercises in a safe manner, following the guidelines for stretching listed in TP2.

CONFIRMATION OF TEACHING POINT 4

The cadets' participation in the cool-down will serve as the confirmation of this TP.

Teaching Point 5 **Describe How To Create and Implement a Running Schedule**

Time: 5 min Method: Interactive Lecture

PURPOSE OF RUNNING SCHEDULE

A running schedule will help a new runner ease into a training plan, or guide an experienced runner to increase their endurance. The schedule should allow the runner to gradually increase intensity at a comfortable pace. A sample running schedule is located at Annex B.

GUIDELINES FOR RUNNING SCHEDULES

The following guidelines should be followed when creating a running schedule to increase endurance and to help prevent injury:

- If there is no running background, begin with eight consecutive days of walking (20 minutes the first four days, and 30 minutes the remaining four days).
- If there is a running background, begin by walking/running four times a week for 20 to 30 min (e.g., 2 min running/4 min walking, repeat this five times for a 30 min workout).
- Increase the running time, as fitness level allows until the cadet is able to run for 30 minutes continuously.
- The distance run in 30 minutes will increase as fitness level improves, allowing for the run to be calculated based on distance instead of time.
- Change the terrain as fitness level improves.

CONFIRMATION OF TEACHING POINT 5

QUESTIONS

Q1. What is the purpose of a running schedule?

Q2. What should a person with no running background begin with?

Q3. What will increase as fitness level improves?

ANTICIPATED ANSWERS

A1. A running schedule will help a new runner ease into a training plan, or guide an experienced runner to increase their endurance.

A2. Begin with eight consecutive days of walking.

A3. The distance that can be run in 30 minutes will increase as fitness level improves.

END OF LESSON CONFIRMATION

The cadet's participation in the activity in TP3 will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Running on alternating terrain will help to increase endurance, which will be useful when participating in summer biathlon activities.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

C0-002 (ISBN 0-88962-630-8) LeBlanc, J. & Dickson, L. (1997). *Straight Talk About Children and Sport: Advice for Parents, Coaches, and Teachers.* Oakville, ON and Buffalo, NY: Mosaic Press.

C0-057 Martha Jefferson Hospital. (2001). *Warm-ups.* Retrieved 16 October 2006, from http://www.marthajefferson.org/warmup.php.

C0-058 Webb Physiotherapists Inc. (ND). *Running Exercises.* Retrieved 26 October 2006 from http://www.physioline.co.za/conditions/article.asp?id=46.

C0-059 Webb Physiotherapists Inc. (ND). *Exercise Programme for Squash, Tennis, Softball, Handball.* Retrieved 25 October 2006 from http://www.physioline.co.za/conditions/article.asp?id=49.

C0-060 Impacto Protective Products Inc. (1998). *Exercises.* Retrieved 25 October 2006, from http://www.2protect.com/work3b.htm.

C0-061 City of Saskatoon, Community Services Department. (ND). *Stretch Your Limits: A Smart Guide To Stretching for Fitness.* Retrieved 26 October 2006, from http://in-motion.ca/walkingworkout/plan/flexibility/.

C0-080 Cool Running. (2007). *Fitness and Performance.* Retrieved 12 February 2007, from http://www.coolrunning.com/engine/2/2_3/181.shtml.

C0-089 (ISBN 0-936070-22-6) Anderson, B. (2000). *Stretching: 20th Anniversary* (Rev. ed.). Bolinas, CA: Shelter Publications, Inc.

C0-146 Will-Weber, M. (2006). *Runner's World: Beginner's: Training: First Steps.* Retrieved 18 April 2007, from http://www.runnersworld.com/article/printer/1,7124,s6-380-381-386-678-0,00.html.

C0-154 Hansen, B. (1999). *Moving on the Spot: Fun and Physical Activity: A Collection of 5-Minute Stretch and Movement Sessions.* Retrieved 26 October 2006, from http://lin.ca/resource/html/dn3.htm#I1.

COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 3

EO C211.03 – FIRE THE CADET AIR RIFLE USING A SLING FOLLOWING PHYSICAL ACTIVITY

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Construct a range IAW A-CR-CCP-177/PT-001.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TP1 to review holding techniques using the cadet air rifle sling.

A practical activity was chosen for TP2 to TP4 as it is an interactive way to allow the cadets to experience firing the cadet air rifle using the cadet air rifle sling following physical activity.

INTRODUCTION

REVIEW

Review EO C111.03 (Fire the Cadet Air Rifle Following Physical Activity).

OBJECTIVES

By the end of this lesson the cadet shall be expected to demonstrate summer biathlon marksmanship skills using the cadet air rifle.

IMPORTANCE

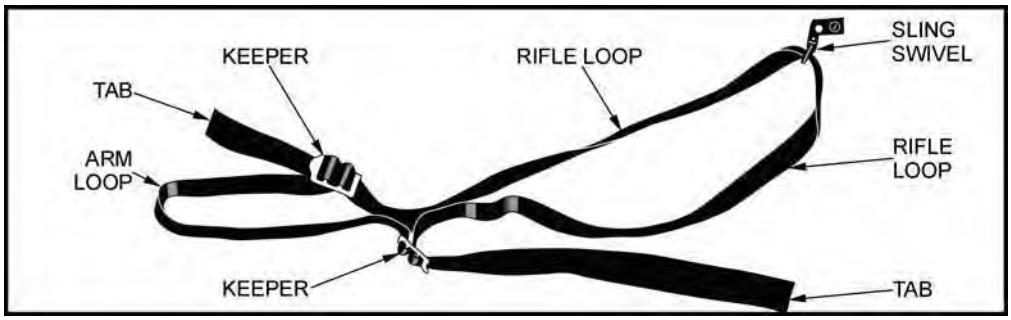
It is important for cadets to be able to adjust the sling on the cadet air rifle and aim while in the prone position because these skills will be useful during summer biathlon activities.

Teaching Point 1 **Review Holding Techniques Using the Cadet Air Rifle Sling**

Time: 5 min Method: Interactive Lecture

The cadet air rifle sling helps the cadet maintain a comfortable and stable position, improving the ability to hold the cadet air rifle. It also allows the right hand to be free to load the air rifle while the rifle remains in position.

ASSEMBLING THE SLING



A-CR-CCP-121/PT-001 (p. 6-17)

Figure 9-3-1 Cadet Air Rifle Sling

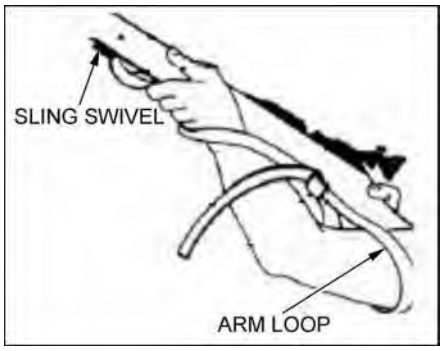
The cadet air rifle sling is assembled in the following sequence:

1. Hold the sling parallel to the ground with the short section in the left hand, ensuring the rounded tip of the keeper is pointing to the left.
2. Take the tab of the short section, loop it through the middle slot of the keeper and then back down through the front slot nearest to the rounded tip. The short section will now form a loop.
3. Turn the sling over and slide the sling swivel onto the long section. Ensure the sling swivel hangs downwards, as it will later attach to the rifle.
4. Loop the tab of the long section up through the middle slot of the keeper and then back through the rear slot of the keeper.

An assistant instructor can be used to demonstrate as the instructor explains wearing, adjusting and attaching the cadet air rifle sling.

POSITIONING THE SLING ON THE ARM

The sling arm loop should be positioned on the upper part of the arm, above the bicep muscle near the shoulder. The sling can be held in place by the rubber pad on a shooting jacket. When a shooting jacket is not worn, the sling can be kept in place using a safety pin. This will prevent the sling from slipping down the arm while in the prone position.

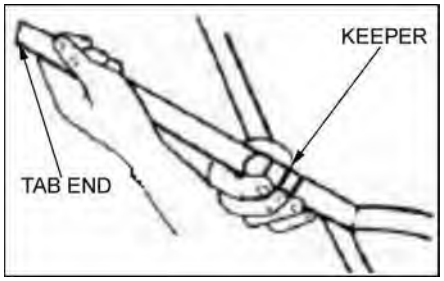


Daisy Outdoor Products, Operational Manual – AVANTI Legend EX Model 853C, Daisy Outdoor Products (p. 7)

Figure 9-3-2 Positioning Sling

ADJUSTING THE ARM LOOP

To adjust the arm loop, pull the tab away from the keeper. If the sling is too loose, it will not fully support the cadet air rifle and it will have to be kept in place using the muscles. If the sling is too tight, it will restrict blood flow to the arm and can cause discomfort, numbness, or a more pronounced feel of the body's pulse. Therefore, the sling must be comfortable without pinching the arm, while providing maximum support of the cadet air rifle.



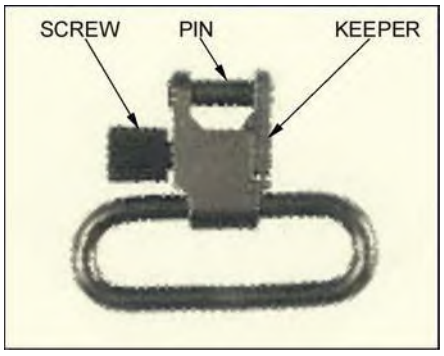
Daisy Outdoor Products, Operational Manual – AVANTI Legend EX Model 853C, Daisy Outdoor Products (p. 8)

Figure 9-3-3 Adjusting Arm Loop

ATTACHING THE SLING TO THE CADET AIR RIFLE

To attach the sling to the cadet air rifle:

- open the keeper on the sling swivel by pressing on the screw;
- insert the swivel pin into the hole of the sling swivel on the fore end of the rifle; and
- screw the keeper over the pin to lock the swivel in place.

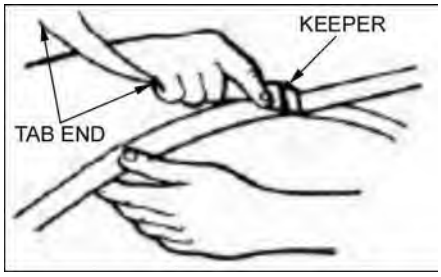


D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 9-3-4 Sling Swivel

ADJUSTING THE RIFLE LOOP

To adjust the rifle loop, pull the tab away from the keeper. The tension of the sling should allow the forearm to be in its proper position. If the sling is too loose, it will not provide maximum support of the cadet air rifle. If the sling is too tight, it could cause discomfort and affect the cadet's position.



Daisy Outdoor Products, Operational Manual – AVANTI Legend EX Model 853C, Daisy Outdoor Products (p. 8)

Figure 9-3-5 Adjusting Rifle Loop

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. What is the purpose of the cadet air rifle sling?

Q2. Where should the cadet air rifle sling be positioned on the arm?

Q3. Why is it important to not over tighten the sling on your arm?

ANTICIPATED ANSWERS

A1. The cadet air rifle sling helps the cadet maintain a comfortable and stable position, improving the ability to hold the cadet air rifle.

A2. The sling arm loop should be positioned on the upper part of the arm, above the bicep muscle near the shoulder.

A3. If the sling is too tight, it will restrict blood flow to the arm and can cause discomfort, numbness, or a more pronounced feel of the body's pulse.

Teaching Point 2 **Conduct a Warm-up Session Composed of Light Cardiovascular Exercises**

Time: 5 min Method: Practical Activity

The following information will be explained to the cadets during the warm-up activity.

PURPOSE OF A WARM-UP

A warm-up is composed of stretches and light cardiovascular exercises designed to:

- stretch the muscles;
- gradually increase respiratory action and heart rate;
- expand the muscles' capillaries to accommodate the increase in blood circulation which occurs during physical activity; and
- raise the muscle temperature to facilitate reactions in muscle tissue.

GUIDELINES FOR STRETCHING

The following guidelines should be followed while stretching to prepare for physical activity and to help prevent injury:

- Stretch all major muscle groups, including the back, chest, legs, and shoulders.
- Never bounce while stretching.
- Hold each stretch for 10 to 30 seconds to let the muscles release fully.
- Repeat each stretch two to three times.
- When holding a stretch, support the limb at the joint.
- Static stretching, which is stretching a muscle and holding it in position without discomfort for 10 to 30 seconds, is considered the safest method.
- Stretching helps to relax the muscles and improve flexibility, which is the range of motion in the joints.
- As a guide, allow 10 minutes to warm-up for every hour of physical activity.

The stretches chosen should focus on the areas of the body that will be used the most during the activity.

ACTIVITY

OBJECTIVE

The objective of this warm-up activity is to stretch the muscles and perform light cardiovascular exercises to prepare the body for physical activity and to help prevent injuries.

RESOURCES

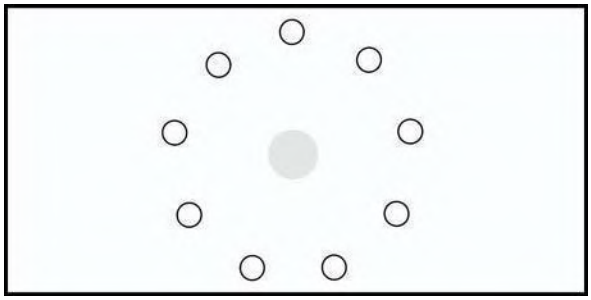
N/A.

ACTIVITY LAYOUT

N/A.

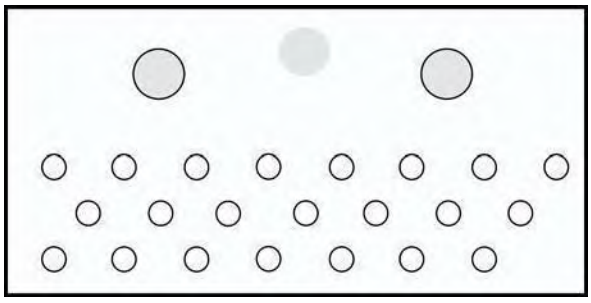
ACTIVITY INSTRUCTIONS

- Arrange the cadets in either a warm-up circle or in rows (as illustrated in Figures 9-3-6 and 9-3-7).



D Cdts 3, 2006, Ottawa, ON: Department of National Defence

Figure 9-3-6 Instructor in the Centre of a Warm-up Circle



D Cdts 3, 2006, Ottawa, ON: Department of National Defence

Figure 9-3-7 Instructor at the Front With Two Assistant Instructors

- Demonstrate before having the cadets attempt each stretch/light cardiovascular exercise.
- Assistant instructors can help demonstrate the exercises and ensure the cadets are performing them correctly.
- Have cadets perform each stretch/light cardiovascular exercise.

Light cardiovascular activities should be done to warm-up the muscles prior to stretching to avoid injury to or tearing of the muscles. For example, running on the spot for 30 seconds or performing jumping jacks should be performed prior to conducting the stretching activities located at Annex A.

SAFETY

- Ensure there are at least two arm lengths between the cadets so they can move freely.
- Ensure the cadets perform the stretches and light cardiovascular exercises in a safe manner, following the guidelines for stretching listed in this TP.

CONFIRMATION OF TEACHING POINT 2

The cadets' participation in the warm-up will serve as the confirmation of this TP.

Teaching Point 3 **Conduct an Activity Where Cadets Will Fire the Cadet Air Rifle Using a Sling Following Physical Activity**

Time: 10 min Method: Practical Activity

ACTIVITY

OBJECTIVE

The objective of this activity is to fire the cadet air rifle using the cadet air rifle sling following physical activity.

RESOURCES

- Cadet air rifle (one per firing lane).
- Cadet air rifle sling (one per firing lane).
- Shooting mats (two per firing lane).
- BART and target frame (one per firing lane).
- Safety glasses/goggles.

If resources are available, the number of firing lanes may be increased.

ACTIVITY LAYOUT

Construct a range IAW A-CR-CCP-177/PT-001.

ACTIVITY INSTRUCTIONS

1. The cadets' heart rate should be elevated from participating in the warm-up activity in TP2.

2. Have the cadets approach the firing point and prepare to fire using the techniques outlined in EO C111.04 (Fire the Cadet Air Rifle Following Physical Activity).
3. Have the cadets adopt the prone position, attach the cadet air rifle sling, and simulate firing at the BART.
4. Repeat steps one to three for each relay until all cadets have participated.

SAFETY

Range activities will be conducted IAW A-CR-CCP-177/PT-001.

CONFIRMATION OF TEACHING POINT 3

The cadets' participation in the activity will serve as the confirmation of this TP.

Teaching Point 4 — **Conduct a Cool-down Session Composed of Light Cardiovascular Exercises**

Time: 5 min — Method: Practical Activity

The following information will be explained to the cadets during the cool-down activity.

PURPOSE OF A COOL-DOWN

A cool-down is composed of stretches and light cardiovascular exercises designed to:

- allow the body time to slowly recover from physical activity and to help prevent injury;
- prepare the respiratory system to return to its normal state; and
- stretch the muscles to help relax and restore them to their resting length.

The stretches chosen should focus on the areas of the body that were used the most during the activity.

ACTIVITY

OBJECTIVE

The objective of the cool-down is to stretch the muscles and perform light cardiovascular exercises that allow the body time to recover from physical activity, and to prevent injury.

RESOURCES

N/A.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

- Arrange the cadets in either a warm-up circle or in rows (as illustrated in Figures 9-3-6 and 9-3-7).
- Demonstrate before having the cadets attempt each stretch/light cardiovascular exercise.
- Assistant instructors can help demonstrate the movements and ensure the cadets are performing them correctly.
- Have cadets perform each stretch/light cardiovascular exercise.

SAFETY

- Ensure there are at least two arm lengths between the cadets so they can move freely.
- Ensure the cadets perform the stretches and light cardiovascular exercises in a safe manner, following the guidelines for stretching listed in TP2.

CONFIRMATION OF TEACHING POINT 4

The cadets' participation in the cool-down will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in the activity in TP3 will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Being able to fire the cadet air rifle using the cadet air rifle sling following physical activity will be useful when participating in summer biathlon activities.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

A0-027 A-CR-CCP-177/PT-001 D Cdts 3. (2001). *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual.* Ottawa, ON: Department of National Defence.

C0-002 (ISBN 0-88962-630-8) LeBlanc, J. & Dickson, L. (1997). *Straight Talk About Children and Sport: Advice for Parents, Coaches, and Teachers.* Oakville, ON and Buffalo, NY: Mosaic Press.

C0-057 Martha Jefferson Hospital. (2001). *Warm-ups.* Retrieved 26 October 2006, from http://www.marthajefferson.org/warmup.php.

C0-058 Webb Physiotherapists Inc. (ND). *Running Exercises.* Retrieved 26 October 2006, from http://www.physionline.co.za/conditions/article.asp?id=46.

C0-059 Webb Physiotherapists Inc. (ND). Exercise Programme for Squash, Tennis, Softball, Handball. Retrieved 25 October 2006, from http://www.physionline.co.za/conditions/article.asp?id=49.

C0-060 Impacto Protective Products Inc. (1998). *Exercises.* Retrieved 25 October 2006, from http://www.2protect.com/work3b.htm.

C0-061 City of Saskatoon, Community Services Department. (2006). *Stretch Your Limits: A Smart Guide To Stretching for Fitness.* Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/.

C0-080 Cool Running. (2007). *Cool Running.* Retrieved 12 February 2007, from http://www.coolrunning.com/engine/2/2_3/181.shtml.

C0-085 Daisy Outdoor Products. (2006). *AVANTI Competition Pellet Rifle: Operation Manual: AVANTI Legend Model 853C.* Rogers, AR: Daisy Outdoor Products.

C0-089 (ISBN 0-936070-22-6) Anderson, B. (2000). *Stretching: 20th Anniversary* (Rev. ed.). Bolinas, CA: Shelter Publications, Inc.

C0-154 Hansen, B. (1999). *Moving on the Spot: Fun and Physical Activity: A Collection of 5-Minute Stretch and Movement Sessions.* Retrieved 26 October 2006, from http://lin.ca/resource/html/dn3.htm#l1.

COMMON TRAINING

INSTRUCTIONAL GUIDE

SECTION 4

EO C211.04 – PARTICIPATE IN A COMPETITIVE SUMMER BIATHLON ACTIVITY

Total Time: 180 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Ensure that all members involved in conducting this activity are well versed in the competition guidelines located at Annex C.

Ensure a first aid station is set up.

Set up a running route of 500 to 1000 m on alternating terrain and a range IAW A-CR-CCP-177/PT-001.

Photocopy Annex D.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TP1 to illustrate the application of rules, principles, and concepts of summer biathlon.

A practical activity was chosen for TP2 to TP4 as it is an interactive way to introduce cadets to summer biathlon. This activity contributes to the development of these skills and knowledge in a fun and challenging setting.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall have participated in a competitive summer biathlon activity.

IMPORTANCE

It is important for cadets to participate in a competitive summer biathlon activity because it requires personal discipline, develops marksmanship skills, and promotes physical fitness.

Teaching Point 1 **Explain the Components of the Competitive Summer Biathlon Activity**

Time: 15 min Method: Interactive Lecture

Based on the facilities, the cadet should be made aware of the start area, the course, the firing range, and the finish area.

COURSE LAYOUT

Each cadet will:

- run a loop of 500 to 1000 m;
- fire five to eight rounds in an effort to activate all five targets on the biathlon air rifle target (BART);
- run a second loop of 500 to 1000 m;
- fire five to eight rounds in an effort to activate all five targets on the BART;
- run a third loop of 500 to 1000 m; and
- finish the race.

The 500 to 1000 m course should be clearly marked prior to the start of this activity.

RULES AND REGULATIONS

Rules and regulations for the competitive summer biathlon activity include the following:

- Cadets must use the same firing lane for the duration of the activity.
- The run must be completed in the proper sequence and on the marked route.
- Rifles must be placed at the firing point by the range staff and will remain there for the duration of the activity.
- All firing will be done in the prone position.
- The cadet air rifle sling is the only firing aid that may be used.
- The rifle must be made safe upon completion of firing.
- An inoperable rifle will be replaced by the range staff, the target will be reset, and the cadet will fire five to eight shots with the new rifle.

- Safety infractions will result in time penalties.
- Missed targets will result in time penalties.

SCORING

Scoring will be calculated as follows:

- **Time.** The cadet's final time is the time from the start to the finish, plus any issued penalties.
- **Firing.** For each bout of firing, the number of missed targets will be recorded on the range recording sheet by the lane scorekeeper (located at Annex D). For each missed target, a one-minute penalty will be added to the cadet's total time.

PENALTIES

Penalties will be added to the individual's time, to include:

- Each violation of the principles of fair play or good sportsmanship will result in a one-minute penalty, to include:
  - not giving way in an area of congestion;
  - pushing or shoving;
  - using profanity; and
  - interfering with other competitors.
- Each missed target will result in a one-minute penalty.
- Each safety infraction on the firing point will result in a one-minute penalty to include:
  - not keeping control of the cadet air rifle;
  - moving forward of the firing point; and
  - intentionally firing rounds at objects other than the BART.

OUT OF BOUNDS AREAS

Make cadets aware of all out of bounds areas and safety considerations depending on the training area.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. What are two rules/regulations for this biathlon activity?

Q2. How will the competitive summer biathlon activity be scored?

Q3. What is one violation of the principles of fair play/good sportsmanship?

ANTICIPATED ANSWERS

A1. Rules and regulations for the competitive summer biathlon activity include the following:

- Cadets must use the same firing lane for the duration of the activity.
- The run must be completed in the proper sequence and on the marked route.

- Rifles must be placed at the firing point by the range staff and will remain there for the duration of the activity.
- All firing will be done in the prone position.
- The cadet air rifle sling is the only firing aid that may be used.
- The rifle must be made safe upon completion of firing.
- An inoperable rifle will be replaced by the range staff, the target will be reset, and the cadet will fire five to eight shots with the new rifle.
- Safety infractions will result in time penalties.
- Missed targets will result in time penalties.

A2. The activity will be scored based on time and penalties.

A3. A violation of the principles of fair play/good sportsmanship may include:

- not giving way in an area of congestion;
- pushing or shoving;
- using profanity; and
- interfering with other competitors.

Teaching Point 2 — **Conduct a Warm-up Session Composed of Light Cardiovascular Exercises**

Time: 10 min — Method: Practical Activity

The following information will be explained to the cadets during the warm-up activity.

PURPOSE OF A WARM-UP

A warm-up is composed of stretches and light cardiovascular exercises designed to:

- stretch the muscles;
- gradually increase respiratory action and heart rate;
- expand the muscles' capillaries to accommodate the increase in blood circulation which occurs during physical activity; and
- raise the muscle temperature to facilitate reactions in muscle tissue.

GUIDELINES FOR STRETCHING

The following guidelines should be followed while stretching to prepare for physical activity and to help prevent injury:

- Stretch all major muscle groups, including the back, chest, legs, and shoulders.

- Never bounce while stretching.
- Hold each stretch for 10 to 30 seconds to let the muscles release fully.
- Repeat each stretch two to three times.
- When holding a stretch, support the limb at the joint.
- Static stretching, which is stretching a muscle and holding it in position without discomfort for 10 to 30 seconds, is considered the safest method.
- Stretching helps to relax the muscles and improve flexibility, which is the range of motion in the joints.
- As a guide, allow 10 minutes to warm-up for every hour of physical activity.

The stretches chosen should focus on the areas of the body that will be used the most during the activity.

ACTIVITY

OBJECTIVE

The objective of this warm-up activity is to stretch the muscles and perform light cardiovascular exercises to prepare the body for physical activity and to help prevent injuries.

RESOURCES

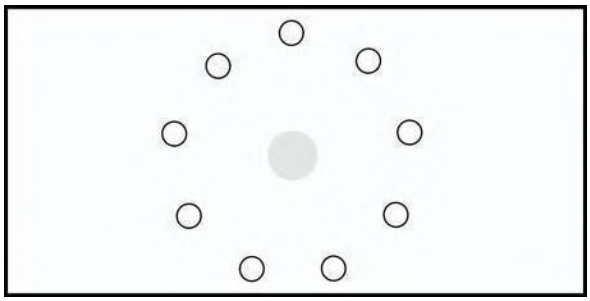
N/A.

ACTIVITY LAYOUT

N/A.

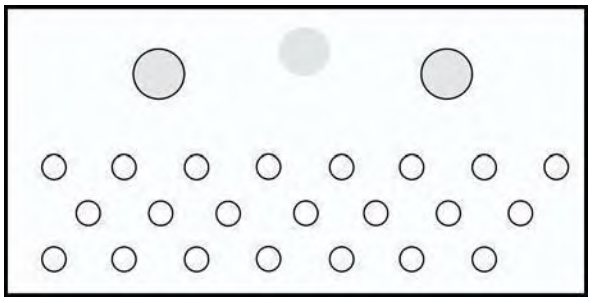
ACTIVITY INSTRUCTIONS

- Arrange the cadets in either a warm-up circle or in rows (as illustrated in Figures 9-4-1 and 9-4-2).



D Cdts 3, 2006, Ottawa, ON: Department of National Defence

Figure 9-4-1 Instructor in the Centre of a Warm-up Circle



D Cdts 3, 2006, Ottawa, ON: Department of National Defence

Figure 9-4-2 Instructor at the Front With Two Assistant Instructors

- Demonstrate before having the cadets attempt each stretch/light cardiovascular exercise.
- Assistant instructors can help demonstrate the exercises and ensure the cadets are performing them correctly.
- Have cadets perform each stretch/light cardiovascular exercise.

Light cardiovascular activities should be done to warm-up the muscles prior to stretching to avoid injury to or tearing of the muscles. For example, running on the spot for 30 seconds or performing jumping jacks should be performed prior to conducting the stretching activities located at Annex A.

SAFETY

- Ensure there are at least two arm lengths between the cadets so they can move freely.
- Ensure the cadets perform the stretches and light cardiovascular exercises in a safe manner, following the guidelines for stretching listed in this TP.

CONFIRMATION OF TEACHING POINT 2

The cadets' participation in the warm-up activity will serve as the confirmation of this TP.

Teaching Point 3 **Conduct a Competitive Summer Biathlon Activity**

Time: 135 min Method: Practical Activity

ACTIVITY

OBJECTIVE

The objective of this activity is for cadets to participate in a competitive summer biathlon activity.

RESOURCES

Based on 20 cadets per group, the following resources are required per event:

- Cadet air rifles (5);
- Cadet air rifle slings (5);

- Shooting mats (10);
- .177 air rifle pellets (a minimum of 700 pellets);
- Stopwatches (5);
- BART and target frame (5);
- Safety glasses/goggles (8);
- Pens/pencils;
- Notice board;
- Biathlon scoresheets located at Annex D;
- Course control sheets located at Annex D; and
- Range recording sheets located at Annex D.

ACTIVITY LAYOUT

- Set up a running route of approximately 500 to 1000 m on alternating terrain.
- Set up an air rifle range in accordance with Annex C.
- Set up targets and target frames.
- Place two shooting mats per shooting lane.
- Place a cadet air rifle at each firing point.
- Place a pair of safety glasses/goggles at each firing point.

ACTIVITY INSTRUCTIONS

Activity instructions are located at Annex C.

SAFETY

- Ensure all range safety procedures are followed.
- Ensure cadets drink plenty of water and apply sunscreen.
- Ensure the running route is clearly marked and crossing points are monitored anywhere a road may be crossed.
- Ensure a first aider is identified at the start of the activity and is available at all times.
- Ensure water is available for the cadets during and after the activity.

CONFIRMATION OF TEACHING POINT 3

The cadets' participation in the activity will serve as the confirmation of this TP.

Teaching Point 4 **Conduct a Cool-down Session Composed of Light Cardiovascular Exercises**

Time: 10 min Method: Practical Activity

The following information will be explained to the cadets during the cool-down activity.

PURPOSE OF A COOL-DOWN

A cool-down is composed of stretches and light cardiovascular exercises designed to:

- allow the body time to slowly recover from physical activity and to help prevent injury;
- prepare the respiratory system to return to its normal state; and
- stretch the muscles to help relax and restore them to their resting length.

The stretches chosen should focus on the areas of the body that were used the most during the activity.

ACTIVITY

OBJECTIVE

The objective of the cool-down is to stretch the muscles and perform light cardiovascular exercises that allow the body time to recover from physical activity, and to prevent injury.

RESOURCES

Area large enough for all cadets to conduct a cool-down activity.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

- Arrange the cadets in either a cool-down circle or in rows (as illustrated in Figures 9-4-1 and 9-4-2).
- Demonstrate before having the cadets attempt each stretch/light cardiovascular exercise.
- Assistant instructors can help demonstrate the movements and ensure the cadets are performing them correctly.
- Have cadets perform each stretch/light cardiovascular exercise.

Sample stretches are located at Annex A.

SAFETY

- Ensure there are at least two arm lengths between the cadets so they can move freely.
- Ensure the cadets perform the stretches and light cardiovascular exercises in a safe manner, following the guidelines for stretching listed in TP2.

CONFIRMATION OF TEACHING POINT 4

The cadets' participation in the cool-down activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in the competitive summer biathlon activity will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Competitive summer biathlon is an activity that requires personal discipline, develops marksmanship skills, and promotes physical fitness. Competitive biathlon opportunities are available at the local, regional, and national level.

INSTRUCTOR NOTES/REMARKS

Results should be posted for cadets to review. PO 211 is a complementary training activity. It is designed to provide an opportunity for the cadets to participate in a competitive summer biathlon activity.

EOs C111.01 (Participate in a Biathlon Briefing), C111.02 (Run Short Wind Sprints), C111.03 (Introduction to Summer Biathlon Marksmanship Skills Using the Cadet Air Rifle), C211.01 (Identify Civilian Biathlon Opportunities), C211.02 (Run on Alternating Terrain), and C211.03 (Fire the Cadet Air Rifle Using a Sling Following Physical Activity) shall be taught prior to conducting this lesson.

REFERENCES

A0-027 A-CR-CCP-177/PT-001 D Cdts 3. (2001). *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual.* Ottawa, ON: Department of National Defence.

A0-032 Cadets Canada. (2002). *Biathlon Competition Rules and IBU/Cadet Disciplinary Rules.* Ottawa, ON: Department of National Defence.

A0-036 Cadets Canada. (ND). *Canadian Cadet Movement: Biathlon Championship Series*. Ottawa, ON: Department of National Defence.

C0-002 (ISBN 0-88962-630-8) LeBlanc, J. & Dickson, L. (1997). *Straight Talk About Children and Sport: Advice for Parents, Coaches, and Teachers.* Oakville, ON and Buffalo, NY: Mosaic Press.

C0-057 Martha Jefferson Hospital. (2001). *Warm-ups.* Retrieved 26 October 2006, from http://www.marthajefferson.org/warmup.php.

C0-058 Webb Physiotherapists Inc. (ND). *Running Exercises.* Retrieved 26 October 2006, from http://www.physionline.co.za/conditions/article.asp?id=46.

C0-059 Webb Physiotherapists Inc. (ND). *Exercise Programme for Squash, Tennis, Softball, Handball.* Retrieved 25 October 2006, from http://www.physionline.co.za/conditions/article.asp?id=49.

C0-060 Impacto Protective Products Inc. (1998). *Exercises.* Retrieved 25 October 2006, from http://www.2protect.com/work3b.htm.

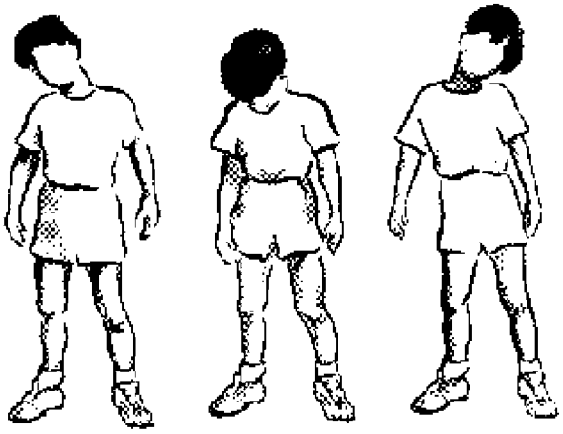
C0-061 City of Saskatoon, Community Services Department. (2006). *Stretch Your Limits: A Smart Guide To Stretching for Fitness.* Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/.

C0-089 (ISBN 0-936070-22-6) Anderson, B. (2000). *Stretching: 20th Anniversary* (Rev. ed.). Bolinas, CA: Shelter Publications, Inc.

C0-154 Hansen, B. (1999). *Moving on the Spot: Fun and Physical Activity: A Collection of 5-Minute Stretch and Movement Sessions.* Retrieved 26 October 2006, from http://lin.ca/resource/html/dn3.htm#l1.

SAMPLE STRETCHES

NECK



Moving on the Spot: A Collection of 5-Minute Stretch and Movement Sessions, by B. Hanson, 1999, Toronto, Ontario: Toronto Public Health. Retrieved 26 October 2006, from http://www.lin.ca/resource/html/dn3.htm#I1

Figure 9A-1 Neck Stretch

Slowly roll your head across your chest from shoulder to shoulder. Do not roll your head backwards.

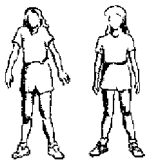
SHOULDERS

Moving on the Spot: A Collection of 5-Minute Stretch and Movement Sessions, by B. Hanson, 1999, Toronto, Ontario: Toronto Public Health. Retrieved 26 October 2006, from http://www.lin.ca/resource/html/dn3.htm#I1

Figure 9A-2 Shoulder Push

Stand and extend your arms behind you, interlocking your fingers. Push up and back with your shoulders.

Hold this position for a minimum of 10 seconds.



Moving on the Spot: A Collection of 5-Minute Stretch and Movement Sessions, by B. Hanson, 1999, Toronto, Ontario: Toronto Public Health. Retrieved 26 October 2006, from http://www.lin.ca/resource/html/dn3.htm#I1

Figure 9A-3 Shoulder Shrug

Stand and raise your shoulders as high as possible and then lower your shoulders, stretching your neck up.

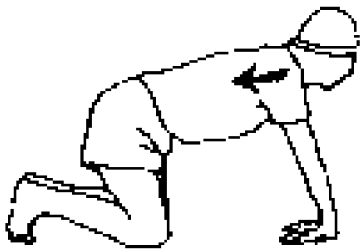
Pull your shoulders back as far as possible and then round your shoulders forward by pushing your shoulders forward as far as possible.

Hold each position for a minimum of 10 seconds.

 Warm Ups, by Martha Jefferson Hospital, Copyright 2001 by Martha Jefferson Hospital. Retrieved 26 October 2006, from http://www.marthajefferson.org/warmup.php Figure 9A-4 Arm Circles	Hold your arms straight out, palms up. Make small circles with your arms, gradually increasing the size. Reverse the direction of your circles.
 Smart Start: A Flexible Way to Get Fit. Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/ Figure 9A-5 Shoulder Stretch	Either standing or sitting, take your right arm in your left hand and bring it across your chest, supporting the joint by holding it behind the elbow. Pull the elbow lightly towards your chest. You should feel the stretch in your right shoulder. Hold this position for a minimum of 10 seconds and repeat on the opposite side.

ARMS

 Exercises. Copyright 1998 by Impacto Protective Products Inc. Retrieved 26 October 2006, from http://www.2protect.com/home.htm Figure 9A-6 Wrist Rotations	Rotate your hands in circular motions at the wrist. Change direction and repeat on both sides.
 Smart Start: A Flexible Way to Get Fit. Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/ Figure 9A-7 Triceps Stretch	Stand and bring your right arm over your head, bent at the elbow. Use your left hand to gently pull your arm down. Hold this position for a minimum of 10 seconds and repeat on the opposite side.

 *Exercise Programme for Squash, Tennis, Softball, Handball. Retrieved 26 October 2006, from http:// www.physionline.co.za/conditions/article.asp?id=49* Figure 9A-8 Forearm Stretch	In a kneeling position, place your hands on the floor in front of you with your fingers pointing toward your knees, and your thumbs pointing out. Keeping your hands flat on the floor, lean back. Hold this position for a minimum of 10 seconds.

CHEST AND ABDOMINALS

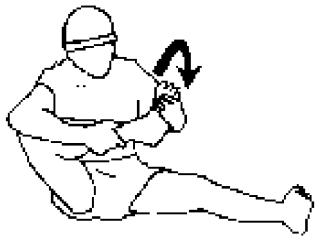
 Smart Start: A Flexible Way to Get Fit. Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/ Figure 9A-9 Chest Stretch	Stand facing a wall. With your right arm bent and your elbow at shoulder height, place your palm against the wall. Turn your body away from your right arm. You should feel the stretch on the front side of your armpit and across the front of you chest. Hold this position for a minimum of 10 seconds and repeat on the opposite side.
 Moving on the Spot: A Collection of 5-Minute Stretch and Movement Sessions, by B. Hanson, 1999, Toronto, Ontario: Toronto Public Health. Retrieved 26 October 2006, from http://www.lin.ca/resource/html/dn3.htm#I1 Figure 9A-10 Side Stretch	Stand with your left arm up over your head. Bend at the waist towards the right side of your body. Hold this position for a minimum of 10 seconds and repeat on the opposite side.

BACK

 Smart Start: A Flexible Way to Get Fit. Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/ Figure 9A-11 Lower Back Stretch	Lie on your back and bring your knees toward your chest. Grasp the back of your knees. Hold this position for a minimum of 10 seconds.
 Smart Start: A Flexible Way to Get Fit. Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/ Figure 9A-12 Upper Back Stretch	Extend your arms straight in front of you at shoulder height crossing one arm over the other. With the palms facing each other, intertwine your fingers and press out through your arms. Let your chin fall to your chest as you exhale. You should feel the stretch in the upper back. Hold this position for a minimum of 10 seconds and repeat on the opposite side.

LEGS

 Smart Start: A Flexible Way to Get Fit. Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/ Figure 9A-13 Hamstring Stretch	Lie flat on the floor with your knees bent and your back flat on the floor. Slowly raise and straighten one leg, grasping it behind your thigh with both hands. Hold this position for a minimum of 10 seconds.

 Smart Start: A Flexible Way to Get Fit. Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/ Figure 9A-14 Inner Thigh Stretch	Sit on the floor with your knees bent and the soles of your feet together. Grab your toes and pull yourself forward while keeping your back and neck straight. Hold this position for a minimum of 10 seconds. Grab your ankles and push your knees down toward the floor with your elbows. Hold this position for a minimum of 10 seconds.
 Smart Start: A Flexible Way to Get Fit. Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/ Figure 9A-15 Hip Flexor	Kneel on your right knee. Position your left foot in front of you, bending your knee and placing your left hand on that leg for stability. Keep your back straight and abdominal muscles tight. Lean forward, shifting more body weight onto your front leg. You should feel the stretch in the front of your hip and the thigh of the leg you are kneeling on. Cushion your kneecap with a folded towel if necessary. Hold this position for a minimum of 10 seconds and repeat on the opposite side.
 *Running Exercises. Retrieved 26 October 2006, http:// www.physionline.co.za/conditions/article.asp?id=46* Figure 9A-16 Ankle Rotations	From a sitting position, rotate your foot in a clockwise, and then a counterclockwise, direction. Switch and repeat on the opposite side.

 Smart Start: A Flexible Way to Get Fit. Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/ Figure 9A-17 Calf Stretch	Stand three steps away from and facing a wall. Step in towards the wall with your right leg, bending your right knee and keeping your left leg straight. Extending your arms with your palms forward, reach out to the wall and let your body fall toward the wall. Keep your toes forward and your heels down. Lean your body into the wall with your left leg straight behind your body. You should feel the stretch in your left calf. Hold this position for a minimum of 10 seconds and repeat on the opposite side.
 Smart Start: A Flexible Way to Get Fit. Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/ Figure 9A-18 Quadriceps Stretch	Stand with your hand against a wall for balance. Lift your left foot off the ground, bending your knee as if you are trying to kick your bottom with your heel. Do not lean forward at the hips. Grab and hold your ankle with your left hand. You should feel the stretch in your left thigh. Hold this position for a minimum of 10 seconds and repeat on the opposite side.

TEN WEEK RUNNING SCHEDULE

Week	Run	Walk	Number of Cycles	Notes
1	2 min	4 min	5	
2	3 min	3 min	5	
3	5 min	2.5 min	4	
4	7 min	3 min	3	
5	8 min	2 min	3	
6	9 min	2 min	2	Run an additional 8 min after the two cycles are completed.
7	9 min	1 min	3	
8	13 min	2 min	2	
9	14 min	1 min	2	
10	30 min			

Note: Always remember to include a warm-up and a cool-down in your schedule.

"First Steps", by Mark Will-Weber, 2006, Runner's World: Beginner's: Training, Copyright 2006 by Rodale Inc. Retrieved 18 April 2007, from http://www.runnersworld.com/article/printer/1,7124,s6-380-381-386-678-0,00.html

Figure 9B-1 Sample Running Schedule

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GUIDELINES FOR CONDUCTING A COMPETITIVE SUMMER BIATHLON ACTIVITY

OBJECTIVES

The objectives of the competitive summer biathlon activity are:

- to practice and improve marksmanship skills;
- to improve the level of physical fitness; and
- to introduce the sport of summer biathlon.

COMPOSITION

Each cadet will enter as an individual.

FACILITIES

The facilities required to conduct a competitive summer biathlon activity are:

- a route, on alternating terrain, of approximately 500 to 1000 m with the start and finish lines located close to the range. The route should be wide enough to accommodate a maximum of 10 cadets running at one time. When roads are to be crossed, they must be clearly marked and a central crossing point established with traffic control provided; and
- an air rifle range constructed IAW A-CR-CCP-177/PT-001 Chapter 1, Section 1, with a minimum of one firing lane per cadet per group.

PARTICIPANTS

This activity may be conducted with cadets from multiple corps. A sample invitation for the competitive summer biathlon activity is located at Annex E.

STAFFING

Numerous staff are required to conduct a competitive summer biathlon activity. These appointments may be filled by corps staff, and shall include:

- **Technical Delegate.** Responsible for the overall conduct of the competition, including issuing penalties, and interpreting the rules.
- **Range Safety Officer (RSO).** Responsible for the overall conduct of the activities on the range.
- **Assistant RSO.** Responsible for targets, issuing ammunition, and assisting the RSO, as required.
- **Lane Scorekeeper.** Responsible for scoring targets and recording results on the range recording sheet (located at Annex D).
- **Chief of Statistics.** Responsible for compiling all the event data (e.g. range results, start/finish time, and any penalties issued).
- **Runner.** Responsible for collecting the scoring sheets and delivering them to the chief of statistics.
- **Start and Finish Line Chief.** Responsible for starting the run and recording the finish times on the scoresheet (located at Annex D).
- **Course Control.** Responsible for recording each time the cadet runs a loop on the course control sheet (located at Annex D).
- **First Aider.** Responsible for dealing with any injuries that may occur during the competition.

FORMAT

Team Captain's Meeting

All cadets will attend the team captain's meeting. This meeting includes all the essential information required by the cadets to participate in the competitive summer biathlon activity. The cadets are given:

- start times;
- range lane assignments;
- weather updates; and
- introductions to the competition staff.

The Running Loop

Each cadet will run three separate loops of 500 to 1000 m. Each running loop will consist of:

- assembling for an individual start (cadets will begin at 10-second intervals for the first loop); and
- crossing the finish line.

The Range

Each cadet will fire five to eight pellets in an effort to activate all five targets on the BART. After each bout of firing, the appropriate lane scorer will record the cadet's results and reset the BART.

SEQUENCE

This competitive summer biathlon activity will be conducted in the following sequence:

1. running a loop of 500 to 1000 m;
2. firing five to eight pellets at the BART;
3. running a loop of 500 to 1000 m;
4. firing five to eight pellets at the BART;
5. running a third loop of 500 to 1000 m; and
6. crossing the finish line.

EQUIPMENT

Based on 20 cadets per group, the equipment required to conduct the competitive summer biathlon activity shall include, but is not limited to the following:

- Cadet air rifles (5);
- Cadet air rifle slings (5);
- Shooting mats (10);
- .177 air rifle pellets (a minimum of 700 pellets);
- Stop watches (5);
- BART and target frame (5);

- Safety glasses (8);
- Pens/pencils;
- Notice board;
- Biathlon scoresheets located at Annex D;
- Course control sheets located at Annex D; and
- Range recording sheets located at Annex D.

DRESS

Appropriate clothing according to the weather forecast.

RULES AND REGULATIONS

- Cadets must use the same firing lane for the duration of the activity.
- The run must be completed in the proper sequence and on the marked route.
- Rifles must be placed on the firing point by the range staff and will remain there for the duration of the activity.
- All firing will be done in the prone position.
- The cadet air rifle sling is the only firing aid that may be used.
- The rifle must be made safe upon completion of firing.
- An inoperable rifle will be replaced by the range staff, the target will be reset, and the cadet will fire five to eight shots with the new rifle.
- Safety infractions will result in time penalties.
- Missed targets will result in time penalties.

SCORING

Scoring will be calculated as follows:

- **Time.** The cadet's final time is the time from the start to the finish, plus any issued penalties.
- **Firing.** For each bout of firing, the number of missed targets will be recorded on the range recording sheet by the lane scorekeeper (located at Annex D). For each missed target, a one-minute penalty will be added to the cadet's total time.

PENALTIES

Penalties will be added to the individual's time, to include:

- Each violation of the principles of fair play or good sportsmanship will result in a one-minute penalty, to include:
    - not giving way in an area of congestion;
    - pushing or shoving;
    - using profanity; and

  - interfering with other competitors.
- Each missed target will result in a one-minute penalty.
- A one-minute penalty will be issued for each safety infraction, to include:
  - not keeping control of the cadet air rifle;
  - moving forward of the firing point; and
  - intentionally firing rounds at objects other than the BART.

OUT OF BOUNDS AREAS

Out of bounds areas are to be clearly identified prior to the start of the competitive summer biathlon activity.

AWARDS

Awards instructions are located at Annex F.

NOTES

- Course control staff will record each time a cadet runs through a loop. See course control sheet located at Annex D.
- The start and finish line chief will keep records for each cadet. When the sheet is full or nearly full the runner will take the sheet to the chief of statistics. See scoresheet located at Annex D.
- Bibs may be used to identify cadets, if available.

COMPETITION GUIDELINES

COURSE CONTROL SHEET

Cadet Name	Loop 1 Verification	Loop 2 Verification	Loop 3 Verification

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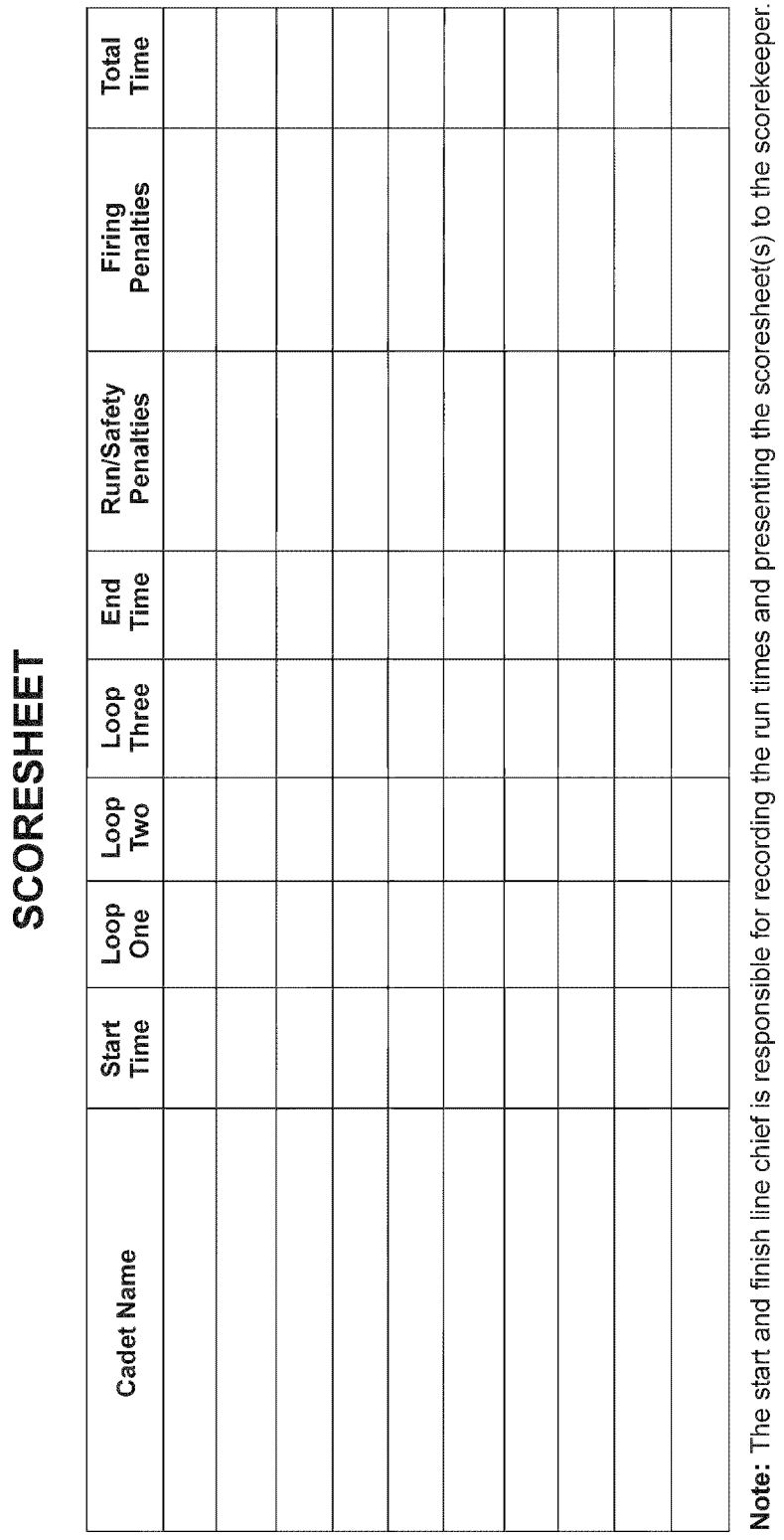
Figure 9D-1 Course Control Sheet



SCORESHEET

Cadet Name	Start Time	Loop One	Loop Two	Loop Three	End Time	Run/Safety Penalties	Firing Penalties	Total Time

Note: The start and finish line chief is responsible for recording the run times and presenting the scoresheet(s) to the scorekeeper.

D Cdts 3, 2006, Ottawa, ON: Department of National Defence

Figure 9D-2 Scoresheet

RANGE RECORDING SHEET

Scorekeeper's Name: _____

Cadet Name:	Lane	Shots Fired						X = Miss				Misses	Comments/Penalties
								◯	◯	◯	◯		
		3 Spare											
Cadet Name:	Lane	Shots Fired						X = Miss				Misses	
								◯	◯	◯	◯		
		3 Spare											
Cadet Name:	Lane	Shots Fired						X = Miss				Misses	
								◯	◯	◯	◯		
		3 Spare											
Cadet Name:	Lane	Shots Fired						X = Miss				Misses	
								◯	◯	◯	◯		
		3 Spare											
Cadet Name:	Lane	Shots Fired						X = Miss				Misses	
								◯	◯	◯	◯		
		3 Spare											
Cadet Name:	Lane	Shots Fired						X = Miss				Misses	
								◯	◯	◯	◯		
		3 Spare											
Cadet Name:	Lane	Shots Fired						X = Miss				Misses	
								◯	◯	◯	◯		
		3 Spare											
Cadet Name:	Lane	Shots Fired						X = Miss				Misses	
								◯	◯	◯	◯		
		3 Spare											

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Figure 9D-3 Range Recording Sheet

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INVITATION SAMPLE

Corps Competitive Summer Biathlon Activity

When:

Where:

Eligibility: Red Star Cadets

Rules: Located at Annex C to PO 211, Instructional Guide.

Event: Individual

Category: Female: three loops of 500 to 1000 m, two relays of firing in the prone position
Male: three loops of 500 to 1000 m, two relays of firing in the prone position

Schedule:

0900hrs	Coaches meeting
1010hrs	Start
1055hrs	Last cadet start
1200hrs	Last cadet finish
1300hrs	Awards

Note: Times listed above are approximate.

Contact Information:

Special Notes:

Additional corps officers will be required to assist in running the competitive summer biathlon activity.

Parents and spectators are invited to observe the activity.

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AWARDS INSTRUCTIONS

AWARDS

All cadets shall be awarded with a certificate/ribbon for participation. The top three competitors from each gender shall be awarded with a certificate/ribbon/medal.

AWARD CEREMONY

The technical delegate shall organize the award ceremony for the competitive summer biathlon activity.

AWARD PRESENTATIONS

The hosting corps Commanding Officer or other local VIP shall present awards to the winning cadets and certificates to all cadets.

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CHAPTER 10

PO 220 – RECOGNIZE CANADIAN FORCES PEACE SUPPORT OPERATIONS

ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 1

EO M220.01 – IDENTIFY THE ROLE OF THE CANADIAN FORCES (CF) IN INTERNATIONAL INSTITUTIONS

Total Time: 60 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TP1 to TP3 to introduce the cadets to the role of the CF in international institutions.

An in-class activity was chosen for TP4 as it is an interactive way to reinforce the topic and confirm the cadets' comprehension of the role of the CF in international institutions.

INTRODUCTION

REVIEW

The review for this lesson is from EO M120.01 (Participate in a Discussion of the Roles of the Canadian Forces), to include:

- Mission and objectives of the CF, and
- Roles of the Canadian Army.

OBJECTIVES

By the end of this lesson the cadet shall be expected to identify the role of the CF in the United Nations (UN), the North Atlantic Treaty Organization (NATO) and the North American Aerospace Defence Command (NORAD).

IMPORTANCE

It is important for cadets to be familiar with the role of the CF in international institutions, such as, the UN, NATO and NORAD. Introducing the cadets to these international institutions may help stimulate an interest in the activities of the CF.

Teaching Point 1 **Explain the Relationship of the CF and the UN**

Time: 10 min Method: Interactive Lecture

THE MANDATE AND A BRIEF HISTORY OF THE UN

The Mandate

The actions of the UN are guided by its Charter, which defines the United Nations' purpose as:

- maintaining international peace and security;
- developing friendly relations among nations;
- achieving international co-operation in solving international problems of an economic, social, cultural or humanitarian character; and
- promoting and encouraging respect of human rights.

The UN Charter is the convention that governs the UN. The Charter is the rules and regulations of the UN.

The History

The UN was officially created on October 24, 1945. It is currently comprised of 192 member states. It replaced the League of Nations, which had been created by the Treaty of Versailles in 1919. Canada was one of the founding members of the UN and had a key role in drafting its Charter.

For this section, focus on Canada's roles within the UN.

The actions of the UN are based on certain principles.

- All members are equal.
- All members must carry out their Charter obligations.
- International disputes are to be settled by peaceful means.
- Members may not use force or the threat of force against other members.
- Members must help the UN in any action it might take in accordance with the Charter.
- The UN may not interfere in the domestic affairs of any state.

One of Canada's roles in UN operations is to reinforce human security by:

- ridding the world of anti-personnel mines;
- halting traffic in small arms and light weapons; and
- stopping the conscription of children as soldiers.

Lester Bowles Pearson received the Nobel Peace Prize in 1957 in recognition of the role he played in the establishment of the UN Emergency Forces, the first modern peacekeeping operation.

Lester B. Pearson was Prime Minister of Canada from 1963 to 1968.

THE ROLE OF THE CF IN UN OPERATIONS

In 1988, United Nations Peacekeeping Forces received the Nobel Peace Prize for their work for a better organized and more peaceful world.

This honour inspired Canada to create the Canadian Peacekeeping Service Medal.

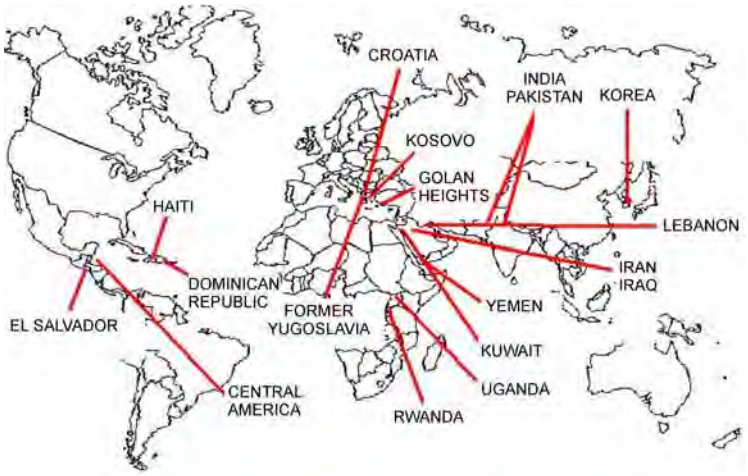
Since 1955, the CF conducted numerous observer missions and included tasks such as:

- monitoring activities to ensure conflicts do not intensify;
- monitoring disputes of rival groups;
- supervising and verifying impartiality during elections or political events;
- enforcing and monitoring ceasefires;
- supervising departures of forces;
- monitoring disarmaments; and
- preventing troops and weapons from entering the country.

Canada has taken part in virtually all of the 54 UN peacekeeping operations up to 2003.

Observer missions were carried out in the following countries:

- Korea (1947–1948);
- India and Pakistan (1949 to present);
- Lebanon (June–December 1958);
- Yemen (1963–1964);
- Golan Heights of Syria (1974);
- Iran-Iraq (1988–1991);
- Central America (1989–1992);
- Haiti (1990–1991);
- El Salvador (1991–1995);
- Iraq-Kuwait (1991–2001);
- Former Yugoslavia (1992–1995);
- Uganda-Rwanda (1993–1994);
- Dominican Republic (1994);



D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 10-1-1 Map of the CF Observer's Missions

- Kosovo (1998–1999); and
- Prevlaka, Croatia (2001).

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. When was UN created?

Q2. What is the UN's purpose?

Q3. Describe the tasks involved in an observer mission.

ANTICIPATED ANSWERS

A1. The UN officially came into being on October 24, 1945.

A2. To maintain international peace and security and to achieve international co-operation in solving international problems of an economic, social, cultural or humanitarian nature and to promote and encourage respect of human rights.

A3. Monitor activities to make sure conflicts do not intensify, monitor disputes of rival groups, supervise and verify impartiality during elections or political events, enforce and monitor ceasefire, supervise departure of forces, monitor disarmament and prevent troops and weapons from entering the country.

Teaching Point 2 **Explain the Relationship of the CF and NATO**

Time: 15 min Method: Interactive Lecture

THE MANDATE, THE STRUCTURE AND A BRIEF HISTORY OF NATO

The Mandate

The primary roles of NATO are:

- to promote the political stability of the North Atlantic area and to protect the freedom and security of its members. It is based on the principles of democracy, individual liberty and international law;
- to provide collective defence to discourage hostile forces from attacking any member country; and
- to co-operate within the Alliance in non-military matters such as assisting in the development of nations, scientific research and environmental protection.

Since September 11, 2001, NATO has been adapting to new challenges, such as:

- defending respect for democracy and human rights;
- fighting international terrorism; and
- fighting the threat posed by the augmentation of weapons of mass destruction.

The Structure

Focus on Canada's roles with NATO.

NATO is the only international organization with:

- a command structure;
- standardized operating procedures;
- standing forces available for expeditionary deployment; and
- a political and a military structure for consultations and decision-making.

NATO does not have its own armed forces but all member countries contribute forces and equipment. This constitutes the military structure of the Alliance. These forces and assets remain under their countries' command and control until they are required by NATO for a specific purpose (e.g. conflict or crisis, peacekeeping).

The History

The NATO treaty was signed in Washington on April 4, 1949 by 12 countries: Belgium, Canada, Denmark, France, Iceland, Italy, Luxembourg, the Netherlands, Norway, Portugal, the United Kingdom and the United States.

NATO was formed to protect members from threats by the former Soviet Union. It was believed that the former Soviet Union would attempt to extend their control to Eastern Europe and to other parts of the continent.

In 1952, Greece and Turkey joined the Alliance, followed three years later by the Federal Republic of Germany and in 1982 by Spain. In 1999, the Czech Republic, Hungary and Poland also became members followed by Bulgaria, Estonia, Latvia, Lithuania, Romania, Slovakia and Slovenia in March 2004.

THE ROLE OF THE CF IN NATO OPERATIONS

Active Commitments

The Canadian commitment to NATO is updated every year. Since 1949, Canada has been the sixth largest contributor to NATO's military and civil budgets. Through NATO, Canada provides:

- a joint task force headquarters;
- a naval task force (up to four combat and support ships) with maritime air support;
- three separate battle groups or a brigade group (an infantry battalion is designated to serve with NATO's Immediate Reaction Force);
- a wing of fighter aircraft; and
- one squadron of tactical transport aircraft.

Peacetime Commitments

Canada also provides the following peacetime commitments to NATO:

- one ship (Standing Naval Force Atlantic);

- on an occasional basis, one ship (Standing Naval Force Mediterranean);
- aircrews and other personnel to serve with the NATO Airborne Early Warning System;
- approximately 200 personnel to serve in various NATO headquarters; and
- participation in the NATO infrastructure and its military budgets.

As resources permit, Canada also provides battle group training grounds for low-level flying and mechanized operations. It is accessible to all NATO partners.

CF Operations

The CF was involved in the following NATO operations:

- Afghanistan;
- The Balkans (Bosnia-Herzegovina, Kosovo and the Former Yugoslav Republic of Macedonia);
- Sudan (strategic airlift and training);
- Iraq (financial contribution and coordination of equipment offers to Iraqi military);
- Mediterranean Operation Endeavour; and
- Turkey.

Since September 12, 2001, the CF has been involved in the fight against terrorism through military operations in Afghanistan, the Balkans and the Mediterranean by taking steps to protect its population and territory against terrorist attacks.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. When did Canada sign the North Atlantic Treaty?

Q2. What is the fundamental role of NATO?

Q3. Name two NATO operations where the CF was involved.

ANTICIPATED ANSWERS

A1. The North Atlantic Treaty was signed in Washington on April 4, 1949.

A2. The fundamental role of NATO is to promote the stability of the North Atlantic area and to protect the freedom and security of its members, based on the principles of democracy, individual liberty and international law.

A3. Afghanistan, the Balkans (Bosnia-Herzegovina, Kosovo and the Former Yugoslav Republic of Macedonia, Sudan (strategic airlift and training), Iraq (financial contribution and coordination of equipment offers to Iraqi military), Mediterranean Operation Endeavour and Turkey.

Teaching Point 3 **Explain the Relationship of the CF with NORAD**

Time: 10 min Method: Interactive Lecture

THE MANDATE, THE STRUCTURE AND A BRIEF HISTORY OF NORAD

The Mandate

NORAD is responsible for aerospace warning missions and aerospace control for North America.

Aerospace warning includes the monitoring of man-made objects in space and the detection, validation and warning of attack against North America by aircraft, missiles, or space vehicles utilizing mutual support arrangements with other commands.

Aerospace control includes detecting and responding to any air threat to North America.

To accomplish this mission, NORAD utilizes a network of ground-based radars and fighter aircraft to detect intercept and, if necessary, engage any air threat to the continent.

As part of its aerospace control mission, NORAD assists in the detection and monitoring of aircraft suspected of illegal drug trafficking. This information is passed to Canadian and American civilian law enforcement agencies to help combat the flow of illegal drugs into the continent.

The Structure

Focus on Canada's region.

The three NORAD regions are:

- Canadian Region (CANR), 17 Wing, Winnipeg, Manitoba;
- Alaskan NORAD Region (ANR) in Elmendorf, Alaska; and
- Continental U.S. NORAD Region (CONR) in Tyndall, Florida.

Each of the three NORAD regions has a similar structure. ANR and CONR have American Commanders and Canadian Deputy Commanders. CANR has a Canadian Commander and an American Deputy Commander.

The History

NORAD is a bi-national effort between the United States and Canada. NORAD has served as the first line of defence against an air attack on both homelands since May 12, 1958.

THE ROLE OF THE CF IN NORAD

CANR executes a variety of tasks to defend Canadian airspace, including:

- identifying and tracking all aircraft entering Canadian airspace; and
- exercising operational command and control of all air defence forces in CANR and air defence operations in support of other government departments and agencies.

The CANR headquarters is located in Winnipeg and oversees all domestic Canadian Air Force operations as well as all operations of the Canadian NORAD Region.

22 Wing is located in North Bay, Ontario and oversees the main surveillance, identification, control and warning for the defence activities for North America.

The North Warning System (NWS) is one of Canada's operations. The NWS provides surveillance of potential attack routes via Arctic airspace. It consists of 15 long-range radars (11 in Canada, four in Alaska) and 39 short-range radars (36 in Canada, three in Alaska) along the northern edge of North America.

All aircraft penetrating the radar coverage are detected and identified by the personnel of 21 Aerospace Control and Warning Squadron (AC&W Sqn), who are always on guard, 24 hours a day, 7 days a week.

Operations

Since September 11, 2001, CANR has been heavily committed to Operation Noble Eagle (ONE), NORAD's ongoing internal air defence mission. To support ONE, CANR fighter aircraft are on continuous alert to respond to any possible aerial threat to the safety of Canada and to conduct random air patrols across the country.

Since 1958, NORAD has tracked the movements of Santa Claus on Christmas Eve. It all starts when Santa Claus leaves the North Pole. The NORAD radar system, the North Warning System detects when Santa lifts off. After that, the satellites track him by following the infrared signature of Rudolph's nose. NORAD also uses the Santa Cam to capture images of Santa and the Reindeer as they make they make their journey around the world. The images are downloaded on the web site for people to see.

For more details, you can visit: www.noradsanta.org.

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

Q1. When was NORAD created?

Q2. Name the three NORAD regions.

Q3. What is the role of CANR?

ANTICIPATED ANSWERS

A1. May 12, 1958.

A2. Canadian NORAD Region (CANR) in Winnipeg, Manitoba, Alaskan NORAD Region (ANR) in Alaska and Continental U.S. NORAD Region (CONR) and Continental U.S. NORAD Region (CONR) in Tyndall, Florida.

A3. The role of the Canadian NORAD Region (CANR) is to provide aerospace surveillance, identification, control and warning for the defence of Canada and North America.

Teaching Point 4 **Identify the Role of CF in International Institutions**

Time: 15 min Method: In-class Activity

This confirmation activity can be conducted in one of two ways: an association game or a quiz game. Select the activity best suited for the group dynamic.

ACTIVITY

OBJECTIVE

The objective of this activity is to have the cadets identify the role of the CF in international institutions.

RESOURCES

- Fact sheet located at Annex A;
- Correction sheet located at Annex B;
- Flip chart paper (one sheet per group); and
- Flip chart markers (one per group).

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Divide the cadets into groups of four or five.
2. Each group shall have a separate table to work on.
3. Give each group a marker and a piece of flipchart paper (separated in to three parts: UN, NATO and NORAD).
4. In their groups, allow cadets 8 minutes to read the fact sheet, discuss and put the information on the flipchart paper under UN, NATO and NORAD.
5. Correct the answers as a group.

SAFETY

N/A.

ACTIVITY

OBJECTIVE

The objective of this activity is to have the cadets identify the role of the CF in international institutions.

RESOURCES

Quiz game question sheet located at Annex C.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Divide the cadets into two teams.
2. Take turns asking each team a question. If the team makes a mistake, the other team is allowed to answer the question and win the point.
3. Cadets can only answer with UN, NATO or NORAD.
4. The team with the highest score wins.

SAFETY

N/A.

END OF LESSON CONFIRMATION

The cadets' participation in the activity in TP4 will serve as the confirmation for this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

This lesson was an introduction to the role of the CF within international institutions to provide an understanding of what the CF does in the world.

INSTRUCTOR NOTES/REMARKS

This IG was designed to provide a detailed background on each of the International Institutions. The instructor should focus on the mandate of the institutions and the role of the CF within. Throughout the lesson, important information will be outlined in note boxes.

REFERENCES

C0-120 (ISBN 0-9680685-7-X) *Canadian Defence Industries Assocation*. (2004). Canadian Defence Almanac 2004. Ottawa, ON: Canadian Defence Industries Association.

C2-047 Foreign Affairs and International Trade Canada. (2006). *Canada and the United Nations*. Retrieved 20 February 2007, from http://geo.international.gc.ca/canada_un/ottawa/canada_un/default-en.asp.

C2-048 North American Aerospace Defence Command. (2007). *Canada NORAD Region (CANR)*. Retrieved 20 February 2007, from http://www.norad.mil/about_us/canr.htm.

C2-049 North Atlantic Treaty Organization. (2006). *Frequently Asked Questions*. Retrieved 20 February 2007, from http://www.nato.int/issues/faq/index.html.

C2-050 Foreign Affairs and International Trade Canada. (2007). *NATO and Canada*. Retrieved 20 February 2007, from http://www.dfait-maeci.gc.ca/foreign_policy/nato/nato_and_canada-en.asp.

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ROYAL CANADIAN ARMY CADETS

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INSTRUCTIONAL GUIDE

SECTION 2

EO M220.02 – PARTICIPATE IN A DISCUSSION ON PEACE SUPPORT OPERATIONS OF THE CANADIAN FORCES (CF)

Total Time: 60 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture method was chosen for TP1 and TP2 to orient the cadets and generate interest in Canadian peace support operations.

An in-class activity was chosen for TP3 as it is an interactive way to reinforce and stimulate an interest among cadets in Canadian peace support operations.

INTRODUCTION

REVIEW

The review for this lesson will be from EO M220.01 (Identify the Role of the Canadian Forces [CF] in International Institutions).

QUESTIONS

Q1. Name the three international institutions to which Canada belongs.

Q2. Which institution promotes the stability of the North Atlantic area and safeguards the freedom and security of its members?

Q3. Which institution conducts its activities from Manitoba, Alaska and Florida?

ANTICIPATED ANSWERS

A1. United Nations (UN), North Atlantic Treaty Organization (NATO) and North American Aerospace Defence Command (NORAD).

A2. The North Atlantic Treaty Organization (NATO).

A3. The North American Aerospace Defence Command (NORAD).

OBJECTIVES

By the end of this lesson the cadet shall have participated in a discussion on CF peace support operations.

IMPORTANCE

It is important for the cadets to know about the CF peace support operations as it supports one of the aims of the Cadet Program – stimulating an interest in the activities of the CF.

Teaching Point 1 **Define Peace Support Operations**

Time: 5 min Method: Interactive Lecture

DEFINITION OF PEACE SUPPORT

Foreign Affairs and International Trade Canada defines peace support operations as a label for a range of connected military, diplomatic and humanitarian tasks, as diverse as:

- reforming justice and security systems;
- disarming, demobilizing troops and reintegrating them to peaceful pursuits; and
- supporting humanitarian assistance.

The peace support operations' label includes previously used expressions, such as peacekeeping, peace enforcement, conflict prevention, peacemaking, peace-building and humanitarian relief.

Peace support operations are by definition overseas.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. What expressions were amalgamated to create the term peace support operations?

Q2. Why were peace support operations created?

Q3. Peace support operations carry out the principles of two institutions. What are they?

ANTICIPATED ANSWERS

A1. Peacekeeping, peace enforcement, conflict prevention, peacemaking, peace-building and humanitarian relief.

A2. To achieve long-term political settlement and to generate a secure environment where civilian agencies can rebuild their country and live in peace.

A3. United Nations and International Human Law.

Teaching Point 2 **Discuss International and Domestic Operations**

Time: 10 min Method: Interactive Lecture

DEFINITION OF INTERNATIONAL OPERATIONS

An international operation means the CF is deployed under the mandate of an international institution and will be involved with other nations. It is an operation that is conducted overseas. It can be from a humanitarian aid operation to any international peace support operation.

Humanitarian operations may include any type of natural disasters, armed conflicts, political and environmental crises. The following are considered humanitarian crises operations:

- providing medical attention (saving lives, reducing suffering and maintain human dignity);
- providing material and logistical assistance; and
- setting up reconstruction teams.

International operations may include the following actions:

- promoting international peace and security;
- protecting civilians;
- monitoring peace treaties and negotiations between parties;
- preventing the spread of conflict;
- ensuring distribution of relief supplies;
- stabilizing conflict situations; and
- preventing recurrence of conflicts.

DEFINITION OF DOMESTIC OPERATIONS

A domestic operation means the CF is deployed within Canada. The CF can assist by:

- providing support to provinces and territories;
- assisting civil authorities;
- assisting in disaster and environmental situations;
- supporting law enforcement; and
- offering community assistance or humanitarian aid.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. Where are international operations conducted?

Q2. Where are domestic operations conducted?

Q3. Name two duties of the CF during domestic operations.

ANTICIPATED ANSWERS

A1. Overseas and it involves other nations.

A2. Within Canada.

A3. Provide support to provinces and territories, assist civil authorities, assist in disaster and environmental situations, support law enforcement and offer community assistance or humanitarian aid.

Teaching Point 3 **Conduct a Group Activity Where Cadets Present a Mission to Their Peers**

Time: 35 min Method: In-class Activity

ACTIVITY

OBJECTIVE

The objective of this activity is to have the cadets present a peace support operation to their peers.

RESOURCES

- Specification sheet located at Annex D;
- Flip chart paper (two sheets per team); and
- Flip chart markers.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

The goal of this activity is to have cadets present the content of the specification sheet related to their operation. Cadets shall prepare a summary and present it to the rest of the group.

1. Separate the cadets into groups of three to four. Try to have as many operations covered as possible. (There are seven specification sheets for operations located in Annex D).
2. Distribute a specification sheet to each group.
3. Cadets will have 10 minutes to collect information and prepare for their presentation.
4. After their preparation, groups will have four minutes to introduce their operations.
5. Groups can use flipchart paper to illustrate their presentation.

SAFETY

N/A.

END OF LESSON CONFIRMATION

The cadets' participation in the in-class activity in TP3 will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

This lesson was about the various peace support operations in which Canada has taken part. Peace Support Operations are a current reality in the CF as they help maintain international peace and stability.

INSTRUCTOR NOTES/REMARKS

To reinforce material, EO C220.03 (Recognize Canada's Role in Peace Support Operations) may be scheduled right after this lesson.

REFERENCES

A2-043 DND. (2007). *Current Operations*. Retrieved 23 February 2007, from http://www.forces.ca/site/operations/current_ops_e.asp.

A2-043 DND. (2007). *Past Operations*. Retrieved 23 February 2007, from http://www.forces.ca/site/operations/past_ops_e.asp.

C0-118 (ISBN 978-1-55365-209-0) Zuehlke, M. (2001). *Canadian Military Atlas*. Vancouver, BC: Douglas & McIntyre Ltd.

C0-124 (ISBN 0-662-69061-3) Veterans Affairs Canada. (2005). *Canada Remembers: The Canadian Forces in the Balkans*. Canada: Her Majesty the Queen in Right of Canada.

C0-125 (ISBN 0-662-69622-0) Veterans Affairs Canada. (2006). *Canada Remembers: The Canadian Forces in Afghanistan*. Canada: Her Majesty the Queen of Canada in Right of Canada.

C0-158 Veterans Affairs Canada. (2006). *Canada Remembers: The Canadian Forces in Cyprus*. Canada: Her Majesty the Queen of Canada in Right of Canada.

C0-159 Veterans Affairs Canada. (2006). *Canada Remembers: The Canadian Forces in Golan*. Canada: Her Majesty the Queen of Canada in Right of Canada.

C2-065 Foreign Affairs and International Trade Canada. (2003). *Canada and Peacekeeping*. Retrieved 19 March 2007, from: http://www.international.gc.ca/peacekeeping/conflict-en.asp.

C2-076 Foreign Affairs and International Trade Canada. (2007). *Canada and Peace Support Operations*. Retrieved 30 April 2007, from http://www.international.gc.ca/peacekeeping/menu-en.asp.

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ROYAL CANADIAN ARMY CADETS

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INSTRUCTIONAL GUIDE

SECTION 3

EO C220.01 – PARTICIPATE IN A TOUR OF CANADIAN FORCES (CF) FACILITY

Total Time: 180 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Make arrangements to attend a guided tour of a CF Facility.

A guest speaker is required to deliver this lesson. The guest speaker should be made aware of the requirements of this lesson. Ensure that any information not covered is provided to the cadets through a question and answer session following the tour. Cadets should be given time to utilize all five senses whenever possible, throughout the duration of the tour.

Touring a Canadian Force Base (CFB) is the best activity for this lesson; however, in the event that a tour of a CFB is not available, a tour of another CF facility/affiliated unit or a tour of a unit historical collection/museum is acceptable.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An experiential approach was chosen for this lesson as it allows the cadets to acquire new knowledge through a direct experience. This tour is designed to stimulate an interest in the CF, and define that experience at a personal level. Cadets will be given an opportunity to reflect on and examine what they saw, felt, and thought while they were having the experience, and consider how this will relate to future experiences.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall have participated in a tour of a CF facility to gain a better understanding of the role of the Canadian Army in today's society.

IMPORTANCE

It is important for cadets to actively partake in a tour of a CF facility as it supports one of the aims of the Cadet Program – stimulating an interest in the activities of the CF. It also perpetuates the solid bond between the CF and the Canadian Cadet Organization (CCO).

BACKGROUND KNOWLEDGE

Cadets may have seen a CFB during the Green Star Program or at a Cadet Summer Training Centre (CSTC); however, this activity will focus on the role of the Canadian Army by touring a CF facility.

CANADIAN FORCES

In the CF, the Army's mission is to provide a trained, combat-ready, agile and quickly responsive force to meet Canada's defence objectives. This broad mission can be broken down into the following objectives:

- protect Canadian territory, interest and values;
- contribute to the defence of North America;
- provide armed and unarmed assistance to civil authorities when needed to maintain public order and security or to assist in emergency relief; and
- contribute to international peace and security support with the collaboration of international institutions (UN, NATO and NORAD).

CANADIAN FORCES BASE

A CFB is home to operational and support units of the CF. A base must be designated by the Minister of National Defence.

There are Army, Navy and Air Force bases located across Canada. Each base is responsible for the employment and training of its personnel. They each have different associated units with specific capabilities (search and rescue, helicopter squadron, combat engineers, armoured units, etc.). Collectively and individually, CFBs help support the mission and objectives of the CF.

ACTIVITY

Time: 170 min Method: Experiential

OBJECTIVE

The objective of this activity is to introduce the cadets to a CF facility in order to gain an understanding of the roles of the CF in today's society.

RESOURCES

N/A.

ACTIVITY LAYOUT

N/A.

SAFETY

Brief the cadets on any safety rules or any other guidelines pertaining to the activity.

- The cadets will remain within set boundaries throughout the tour.
- The cadets will remain as a group.
- The cadets will adhere to all safety guidelines presented at the site.

ACTIVITY INSTRUCTIONS

The guest speaker shall be briefed and the following points covered:

- introduction and brief history of the facility;
- description of the role the facility plays in the CF;
- description of the units supported by the facility;
- tour of the facility;
- introduction to the base command staff or school/unit Commandant/Commanding Officer (if possible).

1. Tell the cadets what facility they will be touring and for how long.
2. Encourage the cadets to look for exciting aspects or elements of the tour and the ways in which it relates to the roles of the CF.
3. Introduce the tour guide.
4. Encourage the cadets to ask the tour guide questions.
5. Participate in the activity.
6. Have the tour guide conclude the tour. De-brief the cadets with the assistance of the tour guide, if necessary.

GROUP DISCUSSION

Time: 20 min

TIPS FOR ANSWERING/FACILITATING DISCUSSION

- Establish ground rules for discussion, e.g. everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Manage time by ensuring the cadets stay on topic.
- Listen and respond in a way that indicates you have heard and understood the cadet. This can be done by paraphrasing their ideas.
- Give the cadets time to respond to your questions.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer. Cadets must also have the option to pass if they wish.
- Additional questions should be prepared ahead of time.

SUGGESTED QUESTIONS

Q1. What did you find the most interesting about the tour?

Q2. What did you learn about this CF Facility?

Q3. How did this tour help you understand the role of the CF?

Other questions and answers will develop throughout the reflection stage. The discussion should not be limited to only those suggested.

Reinforce those answers given and comments made during the group discussion, ensuring the teaching point has been covered.

CONCLUSION

REVIEW

Upon completion of the group discussion, the instructor will conclude by summarizing the discussion to ensure that all teaching points have been covered. The instructor must also take this opportunity to explain how the cadet will apply this knowledge and/or skill in the future.

MAIN TEACHING POINTS

- Introduction to the CF facility (history and role).
- Description and visit of the units supported by the CF Facility.
- Introduction to the CF facility's key offices and personnel.

Reinforce those answers given and comments made during reflection, but ensure that the main teaching points have been covered. Any main teaching point not brought out during the group discussion shall be covered during review.

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

CF facilities are the heart of an efficient military force designed to meet the needs of its members. This lesson provides the cadets with an opportunity to participate in a tour to gain exposure to the roles of a CF facility.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

A2-018 DND. (2007). *About DND/CF: Our Mission*. Retrieved 20 March 2007, from http:// www.forces.gc.ca/site/about/mission_e.asp.

A2-044 DND. (2007). *Media Contacts-DND/CF Public Affairs Contact*. Retrieved 20 March 2007, from http://www.forces.gc.ca/site/contact_pa_e.asp.

C0-120 (ISBN 0-9680685-7-X) Canadian Defence Industries Association. (2004). *Canadian Defence Almanac 2004*. Ottawa, ON: Canadian Defence Industries Association.

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ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 4

EO C220.02 – PARTICIPATE IN A CANADIAN FORCES (CF) PRESENTATION

Total Time:	180 min

No instructional guide is provided for this EO.

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ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 5

EO C220.03 – RECOGNIZE CANADA'S ROLE IN PEACE SUPPORT OPERATIONS

Total Time: 90 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content, and become familiar with the material prior to delivering the lesson.

Preview the documentary.

Photocopy the activity sheet located at Annex E for each cadet.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An experiential approach was chosen for this lesson as it allows the cadets to acquire new knowledge through a direct experience. This lesson is designed to stimulate an interest in the CF and in peace support operations, and define that experience at a personal level. Cadets will be given an opportunity to reflect on and examine what they saw, felt, and thought while they were having the experience, and consider how this will relate to future experiences.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to recognize Canada's role in peace support operations.

IMPORTANCE

It is important for cadets to know about Canada's role in peace support operations as it supports one of the aims of the Cadet Program – stimulating an interest in the activities of the CF.

BACKGROUND KNOWLEDGE

Introduce the cadets to the topic of the documentary *Caught in the Crossfire*.

Distribute the activity sheet located at Annex E. Give the cadets two minutes to read the activity sheet and ask questions if necessary. Cadets will complete the activity sheet during the presentation.

Caught in the Crossfire is a documentary illustrating how Canadian soldiers kept peace in the former Yugoslavia. *Caught in the Crossfire* introduces soldiers like commanding officer LCol Ray Wlasichuk, a 23-year veteran of the Canadian Forces, who makes contact with local warlords on the first day of his tour of duty in Bosnia-Herzegovina. The documentary also presents Canadian peacekeepers negotiating the safe return of an elderly Muslim woman, providing security for a prisoner exchange and providing help to remote communities.

The documentary also makes a point to illustrate the neutrality of Canadian soldiers who refuse to take sides in the conflict.

ACTIVITY

Time: 85 min Method: Experiential

OBJECTIVE

The objective of this activity is to recognize the role of the CF in a peace support operation in the Balkans in 1994.

RESOURCES

- *Caught in the Crossfire* documentary (DVD) 47 min,
- TV, and
- DVD player.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Play the documentary.
2. Have cadets follow and fill in their activity sheet.

The activity sheet will be used during the group discussion.

SAFETY

N/A.

REFLECTION

Time: 25 min

GROUP DISCUSSION

TIPS FOR ANSWERING/FACILITATING DISCUSSION

- Establish ground rules for discussion, e.g. everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Manage time by ensuring the cadets stay on topic.
- Listen and respond in a way that indicates you have heard and understood the cadet.
- This can be done by paraphrasing their ideas.
- Give the cadets time to respond to your questions.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer. Cadets must also have the option to pass if they wish.
- Additional questions should be prepared ahead of time.

SUGGESTED QUESTIONS

Q1. What did you think of the documentary?

Q2. What did you learn about the Balkans peace mission?

Q3. What did you learn about the life of a soldier during peace support operations?

Q4. How do you feel about Canada's role in peace support operations?

Other questions and answers will develop throughout the reflection stage. The discussion should not be limited to only those suggested.

Reinforce those answers given and comments made during the group discussion, ensuring the teaching point has been covered.

CONCLUSION

REVIEW

Upon completion of the group discussion the instructor will conclude by summarizing the discussion to ensure that all teaching points have been covered. The instructor must also take this opportunity to explain how the cadet will apply this knowledge and/or skill in the future.

Reinforce those answers given and comments made during reflection, but ensure that the teaching points have been covered. Any teaching point not brought out during the group discussion shall be covered during review.

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

This lesson was about recognizing the role of the CF in an international peace support operation. Peace support operations are a major reality in the CF as they not only help maintain international peace and stability but provide support and humanitarian aid.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

C2-075 Krepakevich, J. & McCrea, G. (Producers) and Pritchard, G. (Director). (1995). *Caught in the Crossfire*. [Motion Picture]. Canada: National Film Board of Canada.

FACT SHEET

• It was formed on October 24, 1945.
• It was signed on April 4, 1949.
• It combats international terrorism.
• Canada was one of the founding members.
• It is protecting us since May 12, 1958.
• It is a bi-national organization.
• It is guided by a Charter.
• One of its roles is to halt the traffic of small arms and light weapons.
• It has a military structure and a political structure.
• It assists in the detection and monitoring of illegal drug trafficking.
• Haiti was one of its operations.
• It uses the North Warning System for its operations.
• Operation Noble Eagle is one of its main operations.
• It does not have its own armed forces.
• It conducts observer missions.
• Canada is the sixth largest contributor to its civil and military budget.
• It detects and responds to any air-breathing threat to North America.
• It promotes stability and safeguards the freedom and security of its members.

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FACT SHEET/ANSWER KEY

• It was formed on October 24, 1945. (UN)
• It was signed on April 4, 1949. (NATO)
• It combats international terrorism. (NATO)
• Canada was one of the founding members. (UN)
• It is protecting us since May 12, 1958. (NORAD)
• It is a bi-national organization. (NORAD)
• It is guided by a Charter. (UN)
• One of its roles is to halt the traffic of small arms and light weapons. (UN)
• It has a military structure and a political structure. (NATO)
• It assists in the detection and monitoring of illegal drug trafficking. (NORAD)
• Haiti was one of its operations. (UN)
• It uses the North Warning System for its operations. (NORAD)
• Operation Noble Eagle is one of its main operations. (NORAD)
• It does not have its own armed forces. (NATO or UN)
• It conducts observer missions. (UN)
• Canada is the sixth largest contributor to its civil and military budget. (NATO)
• It detects and responds to any air-breathing threat to North America. (NORAD)
• It promotes stability and safeguards the freedom and security of its members. (NATO)

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QUIZ GAME/ANSWER SHEET

2 points for the correct answer.

1 point for the other team when replying.

• It was formed on October 24, 1945. (UN)
• It has a military structure and a political structure. (NATO)
• It uses the North Warning System for its operations. (NORAD)
• It was signed in Washington on April 4, 1949. (NATO)
• Canada was one of the founding members. (UN)
• Operation Noble Eagle is one of its main operations. (NORAD)
• One of its roles is to halt the traffic of small arms and light weapons. (UN)
• Canada is the sixth largest contributor to its civil and military budget. (NATO)
• One of its objectives is to put an end to the conscription of children soldiers. (UN)
• It does not have its own armed forces. (NATO or UN)
• It conducts observer missions. (UN)
• It assists in the detection and monitoring of illegal drug trafficking. (NORAD)
• It is guided by a Charter. (UN)
• Haiti was one of its operations. (UN)
• It provides a low-level flying and mechanized battle group training grounds for its partners. (NATO)

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SPECIFICATION SHEET

Operation	Cyprus
Location	Republic of Cyprus, Mediterranean island on Turkish coast, 9000 square km
Date	1964 to 1993

Map

PLC Map Collection/University of Texas Library Online by University of Texas at Austin, Retrieved 8 March 2007, from http://www.lib.utexas.edu/maps/cia06/cyprus_sm_2006.gif

Figure 10D-1 Map of Cyprus

Description

Cyprus is a small Mediterranean island of 9000 square km (smaller than Cape Breton Island, Nova Scotia). It has a population of almost 800 000 people. Cyprus was a British colony but in 1960, the island gained its independence.

Cyprus has been largely Greek in culture, language and population for more than 3000 years. Many Greek Cypriots (Cyprus citizens) wanted to join the Greek nation. However, there was a minority of Turkish people who where against the possibility. During the independence period, friction between those two groups grew and in 1963, violence exploded everywhere on the island.

In 1964, Cyprus asked the UN to send a peacekeeping force to maintain peace between the Greeks and the Turks. Since small groups of Turks lived among larger groups of Greeks, fights were happening everywhere. After managing many disagreements and conflicts, a fragile balance was reached in 1974.

1974 also marked the coup d'etat organized by the Greek Cypriots. They wanted the island to officially become part of Greece. Turkey responded by invading the island and took control of the northern part of the island. Canadian peacekeepers were suddenly right in the middle of a war zone.

After several weeks of fighting, a cease-fire was negotiated and the Green Line was born. The Green Line was a cease-fire line and a buffer zone stretching across the island. It separated the portions of the island controlled by the Greeks and the Turks.

From 1964 to 1993, the CF maintained a battalion-sized contingent of peacekeepers on Cyprus.

The contingent varied in size during the 29 years of Canada's involvement, from a high of 1100 personnel in 1964 to fewer than 500 in 1974.

Agency Under Which Deployed and Mandate

In 1964, Cyprus asked the UN to establish a peacekeeping force.

Duties

- patrol the buffer zone and monitor the cease-fire;
- maintain crowd control; and
- supervise mediation between angry parties.

Facts and Figures

- The Canadian mission to Cyprus lasted 29 years.
- More than 25 000 CF members served in Cyprus. Many of them served more than once.
- The buffer zone is called the Green line and runs the width of Cyprus. On some maps, it may also be called the Attila line. It is still managed by UN Forces. The length of the line varies in width from 20 m to 7 km.

Heroes, Bravery and Sacrifice

- 28 Canadian peacekeepers gave their lives in Cyprus.
- During the Turkish invasion, Turks were threatening to attack the Cyprus airport. Canadian peacekeepers were defending the area with only a few anti-tank weapons and heavy machine guns. They achieved this by moving around the airport at night to create the illusion that the airport was heavily defended.

Operation	Golan Heights of Syria
Location	Syria
Date	1974 to 2006 (see Facts and Figures)

Map

Maps of Golan Heights, Foundation for Middle East Peace. Retrieved 8 March 2007, from http://www.fmep.org/maps/map_data/golan_heights/golan_1991.gif

Figure 10D-2 Map of the Golan Heights of Syria

Description

Syria is a small Arab country located in the Middle East along the eastern edge of the Mediterranean Sea. It has a population of 18 million people. The Golan Heights is a territory between Syria and Israel.

In 1967, the Israeli Army captured the Heights and put it under military administration from 1967 to 1981. Syria and Israel contest the ownership of the Heights but have not used overt military forces since 1974. On 31 May, 1974, an agreement was signed between Israeli and Syrian forces.

The UN was called to supervise the cease-fire plan and to monitor the situation. The plan provided an area of separation and two equal zones. The border between the two countries is called the 'Area of Separation'. It is 80 km long and from 1 to 10 km wide. Inside this area, no military presence is allowed other than the UN observers. Beyond this area there are restrictions on military presence and the activity of both armies.

Members of the UN's observer forces are usually the only people who can cross the Israeli-Syrian border.

Agency Under Which Deployed

The United Nations.

Duties

- supervise ceasefire;
- establish and monitor the buffer zone;
- supervise the implementation of the disengagement agreement; and
- provide transportation, supply, maintenance, communications and other logistical support services for the main observer force.

Significant Outcomes

Since 1988, Israel has allowed pilgrims to cross the border to visit a shrine in Syria.

Facts and Figures

- In the Golan Heights, Canadians found a way to cope by getting a mascot. ‘Digger the Dog’ lived with the Maintenance Platoon and held the honourary rank of sergeant. He has been with the contingent for more than 20 tours and even had his picture taken with then-prime minister of Canada, Jean Chrétien.
- As of March 2006, 12 000 CF members have served in the Golan Heights.
- The Golan Heights operation is Canada’s third-largest peacekeeping commitment.
- In 2006, two senior officers were still serving in the Golan Heights operation.

Heroes, Bravery and Sacrifice

Four Canadians gave their lives in the Golan Heights.

Operation	The Balkans
Location	Southeast Europe, north of Greece and across the Adriatic Sea from Italy. It was known as Yugoslavia
Date	1991 to ____

Map

PLC Map Collection/University of Texas Library Online by University of Texas at Austin, Retrieved 8 March 2007, from http://www.lib.utexas.edu/maps/europe/central_balkan_pol98.jpg

Figure 10D-3 Map of The Balkans Region

Description

The Balkan countries are located in southeast Europe, north of Greece and across the Adriatic Sea from Italy. This is a land of beautiful mountains, fertile plains and an island-studded coastline that stretches along the Adriatic Sea. For much of the 20th century, this area was a single Communist country known as Yugoslavia. In the early 1990s, Yugoslavia began to feel the long-standing ethnic, religious and political differences between the Roman Catholic, Eastern Orthodox and Muslim populations who have lived there for centuries. This created an environment of suspicion that made for an insecure situation.

The situation became unstable and the country began to crumble. The various ethnic and religious groups erupted in violence.

The various religious groups tried to split off and create their own countries dividing Yugoslavia by ethnic and religious lines. During that period, there were many cases of 'ethnic cleansing' where entire villages or areas of minorities were persecuted, driven out or killed by armies.

Agency Under Which Deployed and Mandate

The CF has served in the Balkans under the United Nations (UN) and the North Atlantic Treaty Organization (NATO).

The UN sent a peacekeeping force to try to reduce the violence in the following countries: Croatia and Bosnia-Herzegovina.

This was the first of a series of UN peace support efforts in Croatia, Bosnia-Herzegovina, Macedonia and Kosovo.

Duties

- monitor fragile ceasefires;
- supply areas under attack with food and supplies for the civilians trapped in the middle of the fighting;
- block naval shipments to the region;
- collect and destroy weapons from local armies;
- protect areas of ethnic minorities;
- patrol and observe in buffer zones;
- clear landmines;
- protect refugees; and
- provide humanitarian assistance.

Facts and Figures

In 1999, Canadian pilots flew combat missions for the first time since the Korean War (1950–1953).

Heroes, Bravery and Sacrifice

- Captain (Capt) Joseph Bélisle and Sergeant (Sgt) Mario Forest received Medals of Bravery while serving in Sarajevo. They rescued two seriously wounded women. While under sniper fire, Capt. Bélisle returned fire to shield Sgt. Forest, who crawled to reach the two victims and removed them from danger and helped them into a military vehicle.
- On two occasions, Canadian soldiers found themselves in hospitals full of patients that had been abandoned by staff because of intense fighting in the area. Canadian soldiers protected the hospitals and gave aid to the patients.
- Master Corporal (MCpl.) Mark Isfeld was a combat engineer who served in three peace missions before losing his life in a landmine explosion in Croatia in 1994. MCpl. Isfeld was known for giving children in war-torn regions handmade dolls that his mother and others in Canada had made. He gave those dolls to bring happiness and hope to children. After his death, thousands of dolls began to flood in from people across Canada in order to keep MCpl. Isfeld's tradition alive. The dolls are now known as 'Izzy dolls'.
- In the Balkans, 20 Canadians gave their lives in various missions.

Operation	Afghanistan
Location	Afghanistan, surrounded by Iran and Pakistan
Date	January 2002 to ____

Map

Understanding Afghanistan: Land in Crisis, National Geographic.com, 2007, Copyright 2007 by National Geographic Society. Retrieved March 8, 2007, from http://www.nationalgeographic.com/landincrisis/political.html

Figure 10D-4 Map of Afghanistan

Description

Afghanistan is a country located in southwest Asia between Pakistan and Iran. It is about the size of Saskatchewan and has a population of about 30 million people. In the 1980s, the Taliban regime gained control of most of the country. The Taliban regime severely limited the civil rights of the citizens and supported terrorist groups, including al-Qaeda (the group claiming to be behind the attacks on Sept 11, 2001 in the United States).

In January 2002, CF soldiers based in Kandahar joined American and British troops to help drive out the Taliban regime, eliminate terrorist operations and establish lasting peace in the country.

With the 'defeat' of the Taliban, attention turned to stabilizing the country and helping the new Afghan government get established. The UN authorized a NATO-led International Security Assistance Forces (ISAF) to take the challenge. The initial Canadian contribution to ISAF consisted of 700 CF members stationed in Kabul. They were responsible for providing support to southern locations. They also had to patrol the western sector of the city.

Agency Under Which Deployed

The UN and NATO (ISAF).

Duties

- bring security and stability;
- search and destroy enemy strongholds;
- patrol areas of the country;

- organize de-mining activities;
- assist in the operations of Kabul International Airport;
- help with control and management of ammunition depots and facilities;
- rebuild the Afghan National Army and police force; and
- provide humanitarian efforts (digging water wells, rebuilding schools, rebuilding roads and distributing relief supplies like blankets, food and school materials).

Significant Outcomes

- Schools, clinics, roads, irrigation canals and wells have been built in various communities.
- The National Solidarity Program was established to help Afghans elect village councils comprised of men and women. They also built infrastructure to improve health and education.
- Over five million children (one-third girls) now go to school compared to 700 000 in 2001.
- Programs are offered in Kandahar to support basic reading, writing and arithmetic skills for adults.

Facts and Figures

- Over the past several years, more than 8000 CF members have helped Afghanistan in its transition to a democratic government.
- Prior to becoming Chief of Defence Staff (February 4, 2005) General Rick Hiller commanded the ISAF mission in Afghanistan between February and August, 2004.

Heroes, Bravery and Sacrifice

- January 27, 2004, Corporal (Cpl) Jamie Murphy was killed when a suicide bomber jumped into his vehicle.
- During a firefight with insurgents, Captain (Capt) Nichola Kathleen Sarah Goddard of the 1st Royal Canadian Horse Artillery from Shilo, Manitoba was the first woman in Canadian history killed in a combat role. She is the first female member of the CF killed in action since World War II.
- On February 19, 2007, Her Excellency the Right Honourable Michaelle Jean, Governor General and Commander-in-Chief of Canada, presented six Military Valour Decorations to CF members who have displayed gallantry and devotion to duty in combat. This was the first time these have been presented since they were created in 1993.
- During that ceremony, Capt Nichola Kathleen Sarah Goddard was awarded the Meritorious Service Medal (Posthumous) for her unfaltering dedication and courage. On five occasions, Capt Goddard volunteered to conduct reconnaissance operations in unsteady villages. Capt Goddard's passionate and professional approach to her duties and those in her charge, directly inspired all mission members and greatly contributed to the mission's success.

Operation	Operation Assistance
Location	Red River, Manitoba
Date	April 21 to May 19, 1997

Map

"Natural Resources Canada", Geoscientific Insights into the Red River and its Flood Problems in Manitoba, 2005, Retrieved 15 March 2007, from http://gsc.nrcan.gc.ca/floods/redriver/geological_e.php

Figure 10D-5 Map of Red River Valley, Manitoba

Description

In Spring 1997, after a winter of heavy snow, the Red River in Manitoba, began flooding in early April. By April 20, people of the Red River Valley were beginning to lose their battle against the rising water.

On April 21, the CF launched Operation Assistance to work under the direction of Emergency Preparedness Canada, helping provincial and municipal authorities and volunteers. The main task was to build floodwalls and breakwaters.

On May 1, the flood reached its highest level and spilled over Winnipeg and spread through the city. The evacuations began May 8 for Winnipeg and the rural areas around it.

By May 12, the worst was over and troops began to withdraw. The flood destroyed properties, houses, fields and farms. Around 800 houses suffered from flood damage.

Agency Under Which Deployed and Mandate

The Manitoba provincial government requested military assistance aid.

Duties

- fill sandbags;
- build floodwalls and breakwaters;
- set up and use pumps;
- patrol evacuated towns; and
- provide medical attention.

Facts and Figures

More than 8500 regular and reserve soldiers were mobilized to work for Operation Assistance.

On May 13, 135 CF vehicles rolled through downtown Winnipeg on their way out of town. The citizens lined the streets, clapping and cheering.

Operation	Operation Recuperation
Location	East Central Canada (western New Brunswick, southern Quebec and eastern Ontario)
Date	January 8 to February 8, 1998

Map

Wikipedia, (2006) North American Ice Storm of 1998, Retrieved 15 March 2007, from http://en.wikipedia.org/wiki/1998_ice_storm

Figure 10D-6 Map of East Central Canada

Description

On January 4, 1998, an ice storm began in East Central Canada. After 80 hours of intermittent freezing rain and drizzle, the icefall finally stopped on January 8. The temperature dropped sharply. The weight of the ice brought down millions of trees, the roofs of large buildings, 120 000 km of power lines and telephone cables, 130 major transmission towers and about 300 000 utility poles.

The storm did most of the damage in western New Brunswick, southern Quebec, especially around Montreal and eastern Ontario in the farming communities of the lower Ottawa valley.

Roads were blocked by fallen trees, power lines were broken by the ice and rivers of ice were blocking everything. More than one million households (9000 in Quebec and 100 000 in Ontario) comprising of about four million people lacked electricity, which meant no lights, central heating, running water, refrigeration or hot meals.

Agency Under Which Deployed and Mandate

The New Brunswick, Ontario and Quebec provincial governments requested aid from the CF.

Duties

- clear roads;
- rescue people and animals trapped by storm wreckage;
- evacuate the sick;
- shelter and feed about 100 000 people;
- inspect generators and ensure the required fuel was used; and

- work with hydro companies to repair and replace downed transmission towers and utility poles.

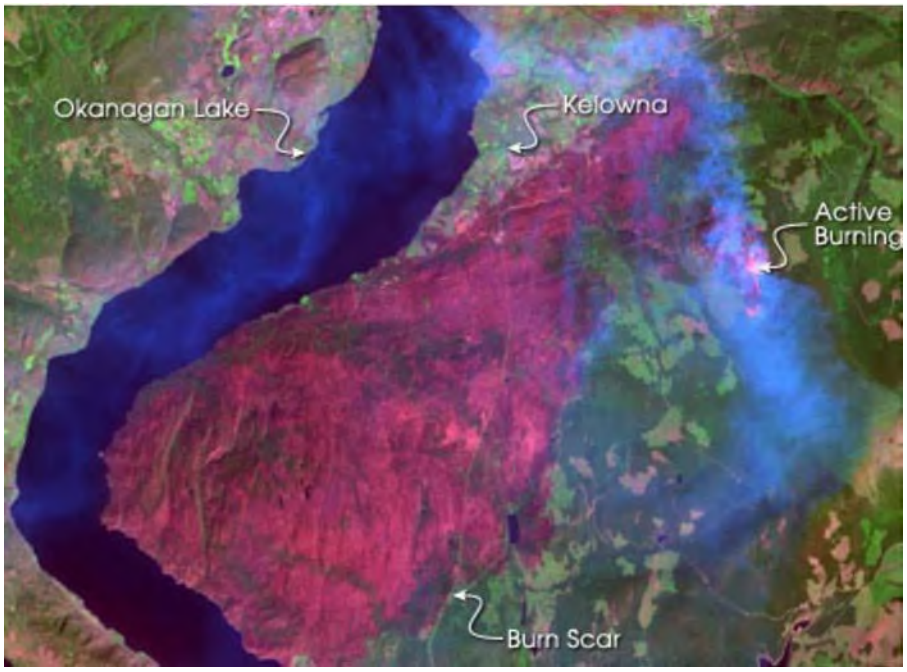
* On January 13, the province of Quebec requested that the CF assume the powers of peace officers around the area of Montreal.

Facts and Figures

- Operation Recuperation involved 15 784 deployed Army, Navy and Air Force personnel, 10 550 in Quebec, 4850 in Ontario and 384 in New Brunswick.
- 3740 were Reserve soldiers.
- In addition, 6200 CF members and DND employees working at their regular jobs provided the logistical support required to sustain such an operation.
- It was the largest operational deployment of troops ever to serve on Canadian soil in response to a natural disaster.
- It was the largest operational deployment of Canadian military personnel since the Korean War.

Operation	Peregrine
Location	British Columbia
Date	August 3 to September 16, 2003

Map



"Visible Earth, a Catalog of NASA Images and Animations of our Planet", by NASA, 2003, Copyright 2003 by NASA/GSFC/MITI/ERSDAC/ JAROS and U.S./Japan Aster Science Team. Retrieved 16 March 2007, from http://visibleearth.nasa.gov/view_rec.php?id=16565

Figure 10D-7 Satellite View of the Okanagan Region During the 2003 Fires

Description

On August 2, 2003, the Government of British Colombia (BC) declared a state of emergency because forest fires were burning throughout the province. Within 24 hours, the first soldiers were deployed and arrived in Merritt, BC.

After receiving a day of basic forest firefighting training from the British Columbia Forest Service, including safety procedures, fire ratings, hose handling, and fire behaviour, the soldiers took the fire lines. The soldiers were divided in two task forces. Task Force One was in Kamloops and Task Force Two was in the Okanagan Valley.

At the height of the crisis, about 800 fires were burning in BC. Thousands of people were ordered out of their homes.

Fires were hard to extinguish because they were fed by fuel sources such as tree roots.

The operation lasted 45 days.

Agency Under Which Deployed and Mandate

The BC provincial government requested military assistance.

Duties

- fighting fires;
- working with civilian firefighters to control unstable fires;
- stabilizing less active areas of fire zones;
- delivering medical attention; and
- providing administration and logistical support.

Facts and Figures

- More than 2200 CF members (including 900 Reservists) were involved in fighting five of the worst fires at Barriere-McLure, Okanagan Mountain Park, Vaseux Lake, McGillivray and Kuskanook.
- 60 fire departments and around 1000 firefighters took part in controlling the fire.
- Operation Peregrine was the third largest domestic operation after the 1998 ice storm (Operation Recuperation) and the 1997 Red River Flood (Operation Assistance).

CAUGHT IN THE CROSSFIRE, ACTIVITY SHEET

1. Note your impressions about the documentary.
2. Note two challenges faced by peacekeepers during this Balkans peace mission.
3. Note two things about the life and duties of a soldier during this mission.
4. Note your impressions and feelings about this peace mission.

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CHAPTER 11

PO 221 – PERFORM THE DUTIES OF A SECTION MEMBER DURING A WEEKEND BIVOUAC EXERCISE

ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 1

EO M221.01 – PERFORM THE DUTIES OF A SECTION MEMBER IN THE FIELD

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for this lesson to give direction on procedures to take as a section member on a weekend bivouac FTX.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to perform the duties of a section member in the field.

IMPORTANCE

It is important for cadets to know their role as a section member in a field environment. On a weekend bivouac FTX, section members will be given small leadership roles within their peer groups to assist with common duties such as setting up the bivouac site, maintaining safety and assisting other cadets.

Teaching Point 1 **Discuss Environmental Considerations When Setting up a Bivouac Site**

Time: 5 min Method: Interactive Lecture

Discuss the listed risks to consider in the field when setting up a bivouac site.

ENVIRONMENTAL CONSIDERATIONS

Fallen Trees/branches. Fallen trees/branches will minimize building effort when setting up a bivouac site. These trees and branches can be used for many components of the site. Fallen trees can mark boundaries, hold signs, and help weatherproof a site. However, care must be taken as cadets can easily trip over fallen trees/branches. A sharp branch can also cause damage to equipment such as tents and ground sheets. Tent sites should not be set up where fallen trees are present.

Dead Trees. Areas with dead trees should be avoided. These trees can easily fall during high winds and storms. Look closely for any branches that may fall. Dead trees lack strength and therefore should not be relied on in bivouac building efforts.

Poisonous Plants. Always look for poisonous plants prior to setting up a bivouac site. Common poisonous plants such as poison ivy, poison sumac and poison oak were identified in EO M121.05 (Recognize Environmental Hazards). Contact with poisonous plants causes severe itching of the skin, red inflammation and blistering. Contact should be avoided.

INSECT RISKS

Beehives and Hornet's Nests. In the field, beehives and hornet nests can be found in trees, shrubs and even in the ground. When nests are disturbed, bees and hornets will get defensive and sting. Always look for beehives and hornet's nests before setting up a site. A good sign that a hive or nest is nearby is when a large number of bees or hornets are flying around.

Tawrell, P., Camping and Wilderness Survival, Leonard Paul Tawrell (p. 898)

Figure 11-1-1 Hornet's Nest

Ant Hills. Once disturbed, ant hills can become a big nuisance. Check the ground for ant hills prior to setting up a bivouac site.

Tawrell, P., Camping and Wilderness Survival, Leonard Paul Tawrell (p. 898)

Figure 11-1-2 Ant Hill

ANIMAL RISKS

Small Trails. It is fairly common to see animals on small trails when in the field. When setting up a bivouac site, ensure that the site does not fall at the end of a trail. This could lead to an unexpected visit from animals. Small trails may lead to dens and watering holes.

Dens. Prior to setting up a bivouac site, look for any areas that may be near animal dens. A group of cadets could easily disturb resting animals. A den may be found on a trail or at the end of a trail in the field.

Watering Holes. Just like humans, animals need water. Bivouac sites should be near water; however, not too close. Sites should be set up approximately 60 m from water. When in the field, water sources can become contaminated very easily. Soap and feces are two of the most common sources. Distancing the bivouac site is also an important step to ensure that contaminants do not pollute the water.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. What are some common environmental risks to consider when selecting a bivouac site?

Q2. In the field, where are beehives and hornet nests usually found?

Q3. What are some indications that animals may be close by?

ANTICIPATED ANSWERS

A1. Fallen trees/branches, dead trees, and poisonous plants.

A2. Beehives and hornet’s nests can be found in trees, shrubs and even in the ground.

A3. Small trails, dens and watering holes.

Teaching Point 2 **Discuss Maintaining a Safe Site**

Time: 8 min Method: Interactive Lecture

A well organized and clean bivouac site is especially important with respect to safety, particularly if the weather gets bad or if there is an emergency.

Discuss some of the simple steps that section members can follow to help ensure a safe site is maintained when in the field.

DISTANCE BETWEEN SHELTERS

There may be many cadets in the field at any given time. It is important that shelters are spread out through both the male and female lines. Shelters should be spaced at least two metres apart. Where guy lines exist, there must be adequate space between shelters so that cadets can easily walk without stepping over lines.

By spacing shelters a small distance, cadets are provided with privacy, while still being able to easily communicate.

When night falls, shelters may be hard to see. When shelters are close together there is a greater chance of having an accident, such as tripping over guy lines.

MARKING THE BIVOUAC LAYOUT

Red Star cadets may be expected to assist in the set-up of a bivouac site.

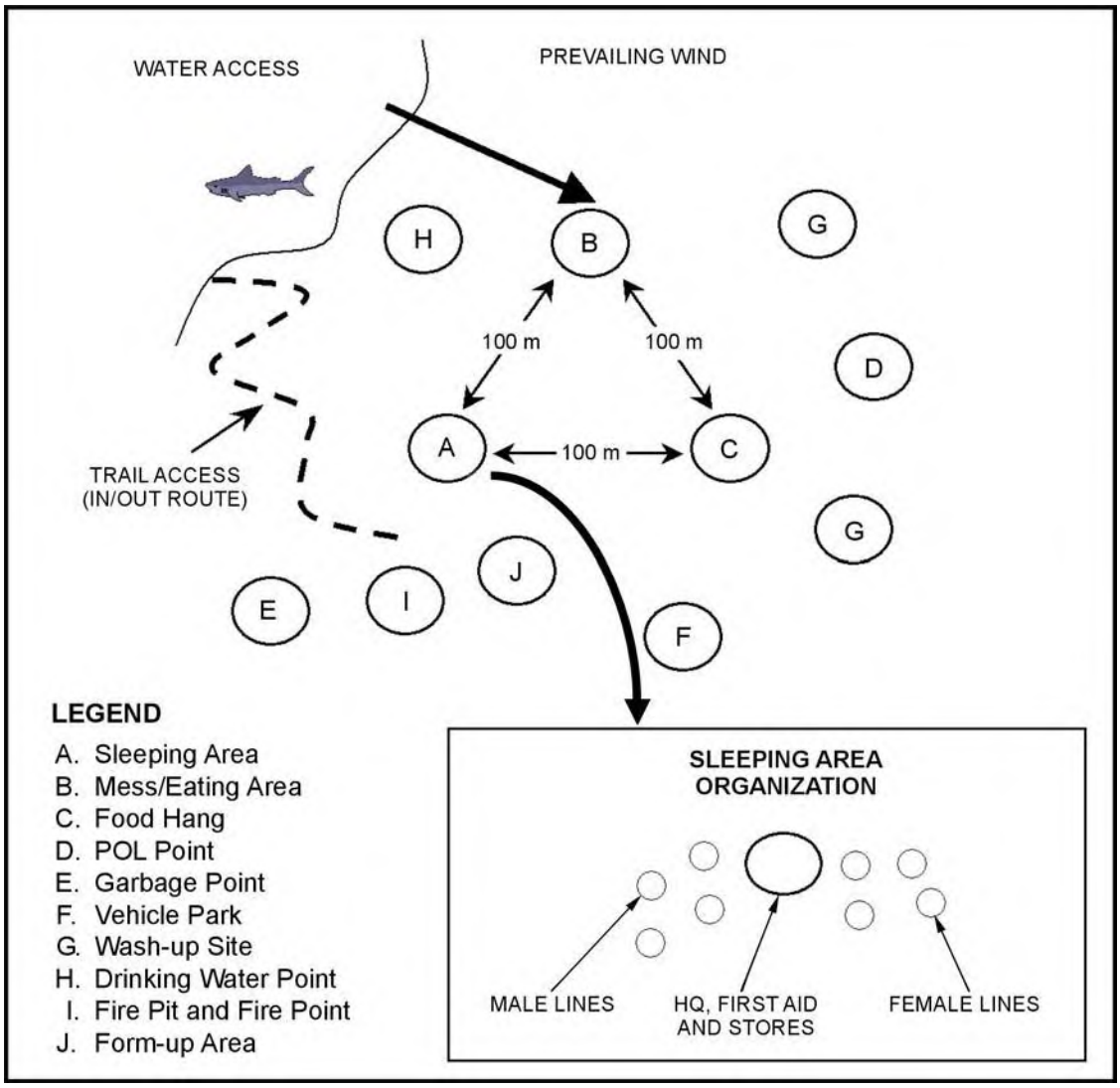
Bivouac layout was discussed in EO M121.09 (Follow Camp Routine). Clearly marking these components is a great way to make sure everyone knows where they are.

Components of a bivouac site are:

- headquarters;
- first aid point;
- supply;
- toilets;
- wash station;
- mess/eating area;
- fire pit;
- fire point;
- in/out route for the safety vehicle;

- form-up area;
- food hang;
- vehicle parking area;
- drinking water point;
- petroleum, oils, and lubricants (POL) point;
- female/male quarters; and
- garbage point.

The following figure is a sample bivouac site.



D Cdts 3, 2007, Ottawa ON: Department of National Defence

Figure 11-1-3 Sample Bivouac Site

Areas that will be used after dark should be lit using glow sticks, lanterns or flashlights.

FIRE PROCEDURES

Upon arrival to a bivouac site, fire procedures will be explained in the safety briefing. It is extremely important that all cadets know and understand the cadet corps' fire procedures.

The fire pit, cooking area, POL point and supply are the areas with the highest risk of fire. All cadets must know where they are located along with actions to take if a fire occurs.

Fire procedures will differ depending on the location of the weekend bivouac FTX. For example, if the bivouac area is in a recognized park, the cadet corps must follow the park's fire procedures. If the bivouac area is on private property, the cadet corps will be expected to follow their established fire procedures.

ASSIST OTHER CADETS

Section members are naturally given leadership opportunities. Assisting other cadets is a key step in the development of leadership in the field.

Though Red Star cadets will not be given an abundance of opportunities to supervise others, there are some basic aspects of field training in which they can assist.

Supervision ensures **safety**. When tasks are being completed, an effective team will work together and assist each other.

Though Red Star cadets are not expected to supervise, as a section member in the field, they can assist their peers and the Green Star cadets in following camp routine.

Section members can assist by:

- setting up the components of the bivouac site;
- ensuring that all cadets know the bivouac layout;
- making sure that all drinking water is coming from drinking water points;
- storing and disposing of all garbage properly; and
- practicing safe behaviour individually and as a group.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. What points should be considered in order to maintain a safe site?

Q2. What components of a bivouac site have the highest risk of fire?

Q3. What is the purpose of supervision?

ANTICIPATED ANSWERS

A1. Shelters should have approximately two metres between them; bivouac components should be clearly marked; everyone should know the applicable fire procedures; and all cadets should be supervised and assisted whenever possible.

A2. The fire pit, cooking area, POL point and supply area.

A3. The purpose of supervision is safety.

Teaching Point 3 **Discuss the Importance of Individual and Group Hygiene**

Time: 7 min Method: Interactive Lecture

By elaborating on the importance of these points, the cadets will begin to understand their role as a section member with the cadet corps. Individual and group hygiene are very important in the field. The cadets can positively influence younger cadets by setting a good example.

CHANGE CLOTHES REGULARLY

It is important to keep all clothing, especially underclothing and socks, as clean and dry as possible. Clothing, as well as the body, must stay clean and dry. Keeping clothes clean will lessen the chances of exposure to rashes and infections. Change clothes, especially socks and undergarments, regularly.

PROPERLY DISPOSE OF WASTE WATER

There will always be a quantity of waste water from personal bathing and cooking in the field.

Follow these steps to properly dispose of waste water.

1. Collect all large particles with a food strainer or cloth and place in the garbage.
2. Place the remaining waste water in a container.
3. Dig a small hole at least 60 m away from any water source.
4. Pour the waste water in the hole.
5. Fill in the hole with natural materials.

WASH REGULARLY

In order to minimize the spread of diseases, hand washing should be enforced when in the field. There are two common approaches to hand washing – hand sanitizers and soap and water.

It is important to always keep the hands clean. Having hand sanitizer is very convenient. When hand sanitizer is not available, use soap and water. Remember to dispose of all waste water.

Washing the body is very important and should be done daily. Pay special attention to areas of the body that are susceptible to rash and fungus infection (the scalp, the crotch, and between the toes).

USE DESIGNATED ABLUTION SITES

Outhouses and chemical toilets should be utilized whenever possible.

Disposing of waste must be done using good judgement and common sense. In an emergency:

- Always urinate at least 60 m away from trails and water sources. Urine will leave a smell and will attract animals once it evaporates.
- Feces can create a significant impact on the environment. Feces can contaminate water sources, spread disease, and affect others both visually and by smell.

Human waste should be deposited in cat holes dug 16 to 20 cm deep and at least 60 m away from water sources, camps and trails. Mix feces with some soil, using a small stick. Cover and disguise the cat hole when finished. Toilet paper should be packed out.

TREAT INJURIES AS SOON AS THEY OCCUR

Serious injuries should be immediately treated by a qualified first aider.

It is relatively easy for minor wounds to occur in a field setting. Injuries have the potential to become infected and it is important to know what to do as soon as these injuries occur.

On the spot treatment for injuries depends on the injury itself, knowledge and training of the people involved, medical materials present, the environment, correct diagnosis of the problem, and the ability to work under strained conditions.

Minor injuries are discussed further in EO M221.04 (Perform Basic First Aid).

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

Q1. Why is it important to keep clothes clean?

Q2. What are the steps to properly dispose of waste water?

Q3. How can one minimize the spread of diseases?

ANTICIPATED ANSWERS

A1. Keeping clothes clean will lessen the chances of rashes and infections.

A2. Follow these steps to properly dispose of waste water.

1. Collect all large particles with a food strainer or cloth and place in the garbage.
2. Place the remaining waste water in a container.
3. Dig a small hole at least 60 m away from any water source.
4. Pour the waste water in the hole.
5. Fill in the hole with natural materials.

A3. Wash hands regularly.

Teaching Point 4 **Discuss Receiving, Caring for, and Returning Equipment**

Time: 5 min Method: Interactive Lecture

Cadets must know the importance of taking care of equipment. When equipment is not properly taken care of, performance is compromised and life of the equipment becomes shorter.

Stress the impact and importance of the following points.

RECEIVING, CARING FOR, AND RETURNING EQUIPMENT

Section equipment is normally stored either within the section or by the quartermaster when in the field. Section equipment, also referred to as stores, includes stoves, lanterns, pot sets, tents, water containers, etc.

When drawing stores, the following points shall be kept in mind:

- Equipment should be signed out only through the designated quartermaster (the designated quartermaster may be a section commander or supply officer).
- Equipment shall always be kept clean when not in use.
- Equipment shall be secured and stored when not in use. The performance of equipment is a vital part of a successful weekend bivouac FTX. Improper securing and storing contributes to loss of durability and a shorter life of the equipment.
- Any equipment loss/damage shall be reported to the designated quartermaster as soon as it occurs or is noticed.
- Equipment shall be returned to the designated quartermaster.

CONFIRMATION OF TEACHING POINT 4

QUESTIONS

Q1. Why should equipment be secured when not in use?

Q2. Who signs in/out equipment?

Q3. When should equipment loss/damage be reported?

ANTICIPATED ANSWERS

A1. The performance of equipment is a vital part of a successful weekend bivouac FTX. Improper securing and storing contributes to loss of durability and a shorter life of the equipment.

A2. Equipment is signed in/out through the designated quartermaster.

A3. Equipment loss/damage should be reported as soon as it occurs or is noticed.

END OF LESSON CONFIRMATION

QUESTIONS

Q1. What types of risks should be considered when setting up a bivouac site?

Q2. How can section members supervise and assist other cadets in following camp routine?

Q3. How can one minimize the spread of diseases?

ANTICIPATED ANSWERS

A1. Environmental, insect and animal.

A2. Section members can supervise and assist by:

- ensuring that all cadets know the bivouac layout;
- making sure that all drinking water is coming from drinking water points;
- storing and disposing of all garbage; and
- practicing safe behaviour individually and as a group.

A3. Wash hands regularly.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

As section members, the cadets are expected to assist with common duties. It is important to know what is expected of a section member so that every section member knows their place in the cadet corps while on a weekend bivouac FTX.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

A0-036 A-CR-CCP-121/PT-001 D Cdts 3 (2000). *Royal Canadian Army Cadet Reference Book*. Ottawa, ON: Department of National Defence.

C0-111 (ISBN 978-0-9740820-2-3) Tawrell, P. (2006). *Camping and Wilderness Survival: The Ultimate Outdoors Book* (2nd ed.). Lebanon, NH: Leonard Paul Tawrell.

C2-016 (ISBN 0-517-88783-5) Curtis, R. (1998). *The Backpackers Field Manual: A Comprehensive Guide to Mastering Backcountry Skills*. New York, NY: Three Rivers Press.

ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 2

EO M221.02 – IDENTIFY SECTION EQUIPMENT

Total Time: 60 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

All items listed in each TP should be available when instructing this lesson. It is understood that some items will be unavailable due to local resource limitations.

Prepare a first aid kit for demonstration. Ensure it is fully equipped IAW A-CR-CCP-951/PT-002, *Royal Canadian Army Cadets Adventure Training Standards*.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for this lesson to identify section equipment, introduce a new subject and to present the different types of equipment available when participating in a weekend bivouac FTX.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to identify section equipment.

IMPORTANCE

It is important for cadets to know what equipment is available when going on a weekend bivouac FTX. Having knowledge of the equipment available and its uses allows cadets to prepare for a weekend bivouac FTX. The items selected can be tailored to meet the objective of the weekend bivouac FTX.

Teaching Point 1 **Identify Types of Stoves and Lanterns**

Time: 15 min Method: Interactive Lecture

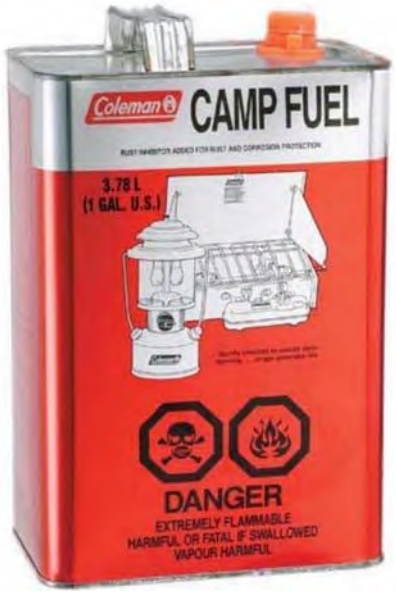
This TP is intended to give an overview of the different equipment available when selecting equipment for camping and trekking/hiking.

Provide cadets with an example of each item. Allow cadets to see the equipment up close and handle it carefully.

TYPES OF FUEL BURNING SYSTEMS

The options of available camping and trekking/hiking equipment are vast and vary depending on the manufacturer. There are three basic types of fuel burning systems, which are based on what they burn – liquid fuel, compressed gas and solid fuel.

Liquid Fuel. Liquid fuel stoves burn white gas—kerosene, alcohol or naphtha. They are the best choice for extremely cold conditions and high altitudes. The fuel is stored in a separate tank. In most cases, this tank uses a pump to help pressurize it. The tank should be filled only to the 3/4 point, leaving some air in the tank. Kerosene, alcohol or naphtha are cleaner fuels that leave little residue when burned.



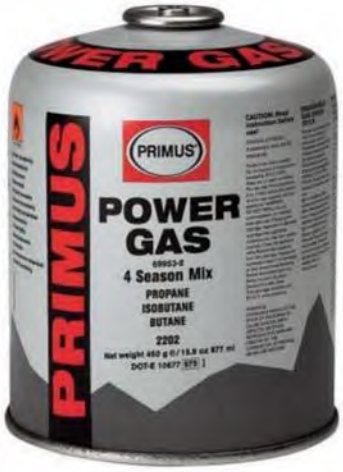
Canadian Tire, Copyright 1997-2007 by Canadian Tire Corporation Limited.
Retrieved 24 April 2007, from =1408474396672290&PRODUCT%3C
%3Eprd_id=845524443280741&bmUID=1177356005717&assortment=primary&fromSearch=true
Naphtha Fuel HYPERLINK "http://www.canadiantire.ca/browse/product_dei"

Figure 11-2-1 Coleman Naphtha Fuel

Compressed Gas. Compressed gas stoves burn butane, isobutene or propane. They are easy to turn on and off and require little maintenance. The heat produced is controlled easily and both the fuel and fuel canister are lighter than liquid fuel stoves. Compressed gas stoves do not work very well in cold temperatures. It is difficult to determine the amount of fuel remaining after use because the fuel is stored in a solid vessel.

Canadian Tire, Copyright 1997-2007 by Canadian Tire Corporation Limited. Retrieved 24 April 2007, fromhttp://www.canadiantire.ca/browse/product_detail.jsp?FOLDER%3C%3Efolder_id=1408474396672290&bmUID=1178201728250&PRODUCT%3C%3Eprd_id=845524443280741&assortment=primary&fromSearch=true

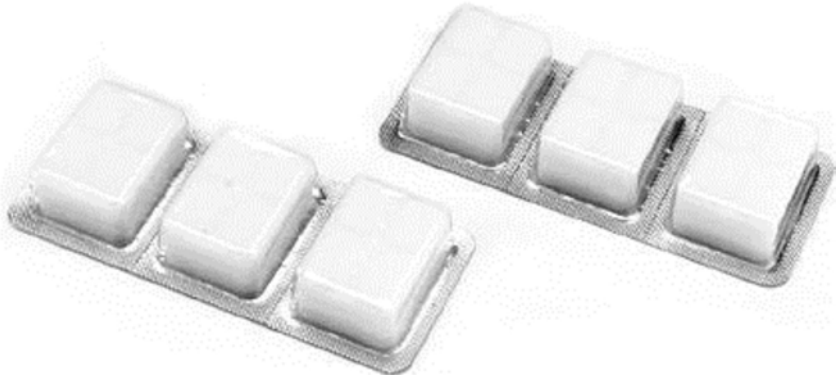
Figure 11-2-2 Compressed Gas



Mountain Equipment Coop, Copyright 2007 by Mountain Equipment Coop. Retrieved 24 April 2007, fromhttp://www.mec.ca/Products/product_detail.jsp?PRODUCT%3C%3Eprd_id=845524441775741&FOLDER%3C%3Efolder_id=2534374302696497&BMUID=1178201628346

Figure 11-2-3 Compressed Gas

Solid Fuel. Solid fuel burns flammable pellets, cubes or wood. These systems are simple and easy to use. Regulating temperature is hard at times as they commonly only burn what is added to them. There is little to no maintenance required on these stoves.



Backpackgear Online.com, Copyright 2007 by Maguire and Johnson Web Services. Retrieved 28 March 2007, from http://www.mjsecure.com/backpackgearonline/product_info.php?cPath=27&products_id=330&osCsid=dc36e4f96e5105dacd461c37f0788f17

Figure 11-2-4 Esbit Stove Fuel

CAMPING STOVES

Single-burner. Single-burner stoves are portable stoves that allow one to cook anywhere without having to make a fire. These stoves store easily and can be carried along a trek with ease. Fuel is carried in a separate container to ensure there is no spillage of fuel in the pack.

Backpackgear Online.com, Copyright 2007 by Maguire and Johnson Web Services. Retrieved 28 March 2007, from http://www.coleman.com/coleman/colemancom/detail.asp?product_id=533B705&categoryid=2020

Figure 11-2-5 Single-burner Coleman Stove

Mountain Equipment Coop, Copyright 2007 by Mountain Equipment Coop. Retrieved 24 April 2007, from http://www.mec.ca/Products/product_detail.jsp?PRODUCT%3C%3Eprd_id=845524441772275&FOLDER%3C%3Efolder_id=2534374302696497&bmUID=1175178016804

Figure 11-2-6 Single-burner MSR Stove

Two-burner. The two-burner stove is an efficient item that is particularly suited for the field. When travelling in groups, this stove can be carried in a supply vehicle or on a toboggan. This stove is equipped with two burners which can help speed up the cooking process.

Coleman Outdoor Company, Copyright 2006 by The Coleman Company, Inc. Retrieved 28 March 2007, from http://www.coleman.com/coleman/colemancom/detail.asp?product_id=425G499&categoryid=70023

Figure 11-2-7 Coleman Powerhouse Naphtha Two-burner Stove

Coleman Outdoor Company, Copyright 2006 by The Coleman Company, Inc. Retrieved 28 March 2007, from http://www.coleman.com/coleman/colemancom/detail.asp?product_id=5466A700&categoryid=70022

Figure 11-2-8 Coleman Two-burner Propane Stove

LANTERNS

Lanterns are designed to produce light. Each type of lantern will produce different amounts of light and last for many hours.

Single-mantle. Single-mantle lanterns which burn naphtha are clean. They can produce a dim, soft light and can burn bright like a beacon when required. The flame is adjustable and fuel consumption can range. This depends on the model type and light setting.

Dual-mantle. Dual-mantle lanterns burn naphtha. They produce more light than a single-mantle lantern. A soft light/glow can be produced and it is capable of burning bright like a beacon when required. The flame is adjustable and fuel consumption can range depending on the model type and light setting.

Battery-powered. Battery-powered lanterns provide a light that radiates from a centre bulb. The lantern has reflective surfaces above and below the light – reflecting light upward and outward. Bulbs and batteries are easily replaceable. These lanterns will run approximately 4 hours or more depending on model type.

Coleman Outdoor Company, Copyright 2006 by The Coleman Company, Inc. Retrieved 28 March 2007, from http://www.coleman.com/coleman/colemancom/detail.asp?product_id=288B700&categoryid=1015

Figure 11-2-9 Single-mantle Naphtha Lantern

Coleman Outdoor Company, Copyright 2006 by The Coleman Company, Inc. Retrieved 28 March 2007, from http://www.coleman.com/coleman/colemancom/detail.asp?product_id=288B700&categoryid=1015

Figure 11-2-10 Dual-mantle Naphtha Lantern

Coleman Outdoor Company, Copyright 2006 by The Coleman Company, Inc. Retrieved 28 March 2007, from http://www.coleman.com/coleman/colemancom/detail.asp?product_id=5315J725&categoryid=1045

Figure 11-2-11 Mini Pack-away Battery Lantern

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. What are the three types of fuel burning systems?

Q2. What types of lanterns are there?

Q3. What type(s) of fuel is used by a white gas system?

ANTICIPATED ANSWERS

A1. Liquid, compressed and solid.

A2. Single-mantle, dual-mantle, and battery-powered.

A3. Kerosene, alcohol or naphtha.

Teaching Point 2 **Identify Types of Field Tools**

Time: 10 min Method: Interactive Lecture

This TP is intended to give an overview of the different equipment available when selecting equipment for camping and trekking/hiking.

Provide cadets with an example of each item. Allow cadets to see the equipment up close and handle it carefully.

SINGLE-BIT AXE

The single-bit axe has a sharp, fully polished, tempered steel head. The axe handle inserts into the axe head also know as the single-bit. The axe requires very little maintenance—only sharpening when the blade is dull and occasionally adding a few drops of oil to prevent rusting. This tool may be used for cutting or splitting wood.

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Figure 11-2-12 Single-bit Axe

BOW SAW

The bow saw is a metal-framed saw in the shape of a bow with a coarse wide blade. It is mostly used for cutting trees and branches. The blade is toothed and suspended between two long narrow handles called “cheeks”.

D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 11-2-13 Bow Saw

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. What is a single-bit axe used for?

Q2. What is the head of an axe made of?

Q3. What is a bow saw and why is it used?

ANTICIPATED ANSWERS

A1. A single-bit axe is a tool that is used for cutting or splitting wood.

A2. The axe head is made of tempered steel.

A3. The bow saw is a metal-framed saw in the shape of a bow with a coarse wide blade. It is mostly used for cutting trees and branches.

Teaching Point 3 **Identify Liquid Storage Vessels**

Time: 10 min Method: Interactive Lecture

This TP is intended to give an overview of the different equipment available when selecting equipment for camping and trekking/hiking.

Provide cadets with an example of each item. Allow cadets to see the equipment up close and handle it carefully.

STOVE AND LANTERN FUEL VESSELS

Mountain Equipment Coop, Copyright 2007 by Mountain Equipment Coop. Retrieved 28 March 2007, fromhttp://www.mec.ca/Products/product_detail.jsp?PRODUC%3C%3Eprd_id=845524441772275&FOLDER%3C%3Efolder_id=2534374302696497&bmUID=1175178016804

Figure 11-2-14 Fuel Container

Mountain Equipment Coop, Copyright 2007 by Mountain Equipment Coop. Retrieved 28 March 2007, fromhttp://www.mec.ca/Products/product_detail.jsp?FOLDER%3C%3Efolder_id=2534374302696497&PRODUCT%3C%3Eprd_id=845524442413091&bmUID=1175621430159

Figure 11-2-15 Fuel Container

Mountain Equipment Coop, Copyright 2007 by Mountain Equipment Coop. Retrieved 28 March 2007, fromhttp://www.mec.ca/Products/product_detail.jsp;jsessionid=GSTxtICM69T22xGcCGVwLn2T2Y83jV2cYHTJTXFlRlsGXMdYq0LC!-384445592?FOLDER%3C%3Efolder_id=2534374302696497&PRODUCT%3C%3Eprd_id=845524441776153&bmUID=1175621361170

Figure 11-2-16 Fuel Container

Fuel containers for backpacking are either plastic or aluminium. Aluminium containers are usually a cylindrical aluminium bottle. Once a container is used for a particular type of fuel it should not be used for another fuel, as the substances may combine and deteriorate the container.

Plastic bottles are usually red in colour and are coated with a fluoropolymer inner coating that resists both gasoline and alcohol. Plastic fuel bottles should never be used as a tank for a stove or be pressurized with a pump.

WATER CONTAINER/CARRIER

Carrying water for a short day hike is usually no problem—one only requires a lightweight water bottle with a tight lid. When camping, a larger storage container is required.

Water Bottle. A water bottle may be used for any type of hike. Versatile equipment benefits the user. Choose bottles that can withstand the temperatures of freezing cold or boiling hot liquids.

D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 11-2-17 Water Canteen

Mountain Equipment Coop, Copyright 2007 by Mountain Equipment Coop. Retrieved 28 March 2007, from http://www.mec.ca/Products/product_detail.jsp?PRODUCT%3C%3Eprd_id=845524442500177&FOLDER%3C%3Efolder_id=2534374302696609&bmUID=1177425692300

Figure 11-2-18 Nalgene Water Bottle

Water Carrier Bag. Water carrier bags are convenient for long treks where there is no water and for carrying water from a source to a campsite. Small bags are useful as they can be balanced on different parts of one's pack. Water bags can carry up to several litres of water.

Mountain Equipment Coop, Copyright 2007 by Mountain Equipment Coop. Retrieved 24 April 2007, from http://www.mec.ca/Products/product_detail.jsp?PRODUCT%3C%3Eprd_id=845524441772631&FOLDER%3C%3Efolder_id=2534374302696609&bmUID=1177427868771

Figure 11-2-19 MSR Water Bag

Jerry Can. A jerry can is a large water container that has a capacity of 20 L. This container is either green or black in colour and is identified with the word 'water', as seen in Figure 11-2-20.

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Figure 11-2-20 Black and Green Jerry Can

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

Q1. Containers of what two materials can store fuel?

Q2. What colour is a jerry can?

Q3. What is the capacity of a jerry can?

ANTICIPATED ANSWERS

A1. Aluminium and plastic containers can store fuel.

A2. A jerry can is black or green.

A3. A jerry can holds 20 L of water.

Teaching Point 4 **Identify the Contents of a First Aid Kit**

Time: 15 min Method: Interactive Lecture

This TP is intended to give an overview of a first aid kit. Lay out all items in the first aid kit and discuss each as listed.

FIRST AID KIT

When travelling with a group, carry a first aid kit of appropriate size and type for the group and the activities expected. The first aid kit must be readily available during training and must be carried with every group at all times.

Commercially available first aid kits are useful, but the contents need to be tailored for the field setting. The minimum contents of a first aid kit, as listed in A-CR-CCP-951-PT-002, are listed below:

Instruments

- **One Pair of Bandage Scissors.** Scissors are essential for cutting tape and bandages.
- **One Pair of Splinter Type Forceps.** Splinter type forceps resemble tweezers, and they are used for grasping and holding (e.g. removing wood splinters).
- **12 Safety Pins (Assorted Sizes).** A safety pin is a pin with a point that is bent back to the head and is held in a guard when closed. These are used to secure bandages, etc.
- **Two Splints.** A splint is stiff rigid material may be used for holding a limb or broken bone in a fixed position.
- **One Respirator With Valve.** A respirator with a valve is an apparatus for maintaining artificial respiration. It also provides separation between the casualty and the first-aider, protecting the transmission of infections when giving rescue breaths.

Dressings

Dressings are used to cover bleeding wounds. These dressings and bandages come in various sizes and types, to include:

- 25 separately wrapped sterile adhesive bandages (25 mm x 75 mm);
- 25 separately wrapped sterile gauze compresses (101.6 mm x 101.6 mm);
- 4 separately wrapped rolls of sterile gauze bandages (50 mm x 9 m);
- 4 separately wrapped rolls of sterile gauze bandages (101.6 mm x 9 m);

- 6 triangular bandages;
- 2 rolls of 75 mm wide elastic bandages;
- 4 separately wrapped sterile compress bandages (101.6 mm x 101.6 mm);
- 1 roll of adhesive plaster (25 mm x 9 m);
- 2 rolls of 50-g cotton batting; and

Antiseptic pads

Antiseptic pads are sterile, free from contamination. They are used to clean the area surrounding a wound. Each first aid kit shall contain 25 separately wrapped antiseptic pads.

Sugar

Sugar is included in a first aid kit in the event that a diabetic becomes hypoglycemic. Hypoglycemia occurs when there is a deficiency of glucose (sugar) in the bloodstream. The sugar is either mixed with water and consumed or ingested directly.

Equipment

- **Blanket of Wool or a Moisture-proof Insulating Material.** This can be any type of wool blanket or a survival/emergency foil blanket. Only one is required and it is used to keep a casualty warm.
- **Waterproof Lighter or Matches.** Waterproof lighter or matches are useful for creating fire. Matches should not be wasted and only used when improvised methods fail.
- **Latex Gloves.** These gloves are used to provide a sterile barrier between the first-aider and the casualty. There shall be a minimum of two pairs per first aid kit.

CONFIRMATION OF TEACHING POINT 4

QUESTIONS

Q1. Why are scissors in a first aid kit?

Q2. What purpose does sugar serve in a first aid kit?

Q3. Why are there latex gloves in the first aid kit?

ANTICIPATED ANSWERS

A1. Scissors are essential for cutting tape and bandages.

A2. Sugar is used in the event that a diabetic went hypoglycemic. Hypoglycemia occurs when there is a deficiency of glucose (sugar) in the bloodstream.

A3. Latex gloves are in a first aid kit to provide a sterile barrier between the first-aider and the casualty.

END OF LESSON CONFIRMATION

Complete either the equipment identification or questions for this TPs confirmation.

Hold up a piece of equipment and have the cadets identify it. Do this for five more items.

QUESTIONS

Q1. What type of fuels can be used in equipment systems?

Q2. What is the head of an axe made of?

Q3. When going into the field, how many groups require a first-aid kit?

ANTICIPATED ANSWERS

A1. Liquid, compressed and solid fuel can be used in equipment systems.

A2. The axe head is made of tempered steel.

A3. All groups that travel independently require a first-aid kit.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Cadets have been provided with information on various types of equipment. This information allows cadets the opportunity to tailor their selection of equipment according to the needs of any weekend bivouac FTX.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

A2-001 A-CR-CCP-951/PT-002 D Cdts 3. (2006). *Royal Canadian Army Cadets Adventure Training Safety Standards*. Ottawa, ON: Department of National Defence.

C0-111 (ISBN 0-9740820-2-8) Tawrell, P. (2006). *Camping and Wilderness Survival: The Ultimate Outdoors Book* (2nd ed.). Lebanon, NH: Leonard Paul Tawrell.

C2-010 (ISBN 0-375-70323-3) Rawlins, C., and Fletcher, C. (2004). *The Complete Walker IV*. New York, NY: Alfred A. Knopf.

C2-016 (ISBN 0-517-88783-5) Curtis, R. (1998). *The Backpacker's Field Manual: A Comprehensive Guide to Mastering Backcountry Skills*. New York, NY: Three Rivers Press.

C2-042 (ISBN 0-7566-0946-1) Berger, K. (2005). *Backpacking & Hiking*. New York, NY: DK Publishing, Inc.

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ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 3

EO M221.03 – IDENTIFY PROVINCIAL/TERRITORIAL WILDLIFE

Total Time: 60 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Learning stations are a form of group work, where the cadets learn by sorting through information presented. When setting up learning stations, ensure there is enough room for each cadet to be comfortable, and adequate space for writing down information. When the cadets arrive at a learning station, all information needed shall already be available. These stations should be placed closely together to minimize time for movement; however far enough apart to avoid interruptions from other groups. For this lesson, choose and set up a minimum of four learning stations for provincial/territorial wildlife.

Photocopy handouts located at Annexes A and B.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An in-class activity was chosen for TP1 as it is an interactive way to provoke thought and stimulate interest among cadets.

An interactive lecture was chosen for TP2 to orient the cadets to potential risks of animals in the field and present background material.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to know characteristics of their provincial/territorial wildlife, specifically those that may be encountered when in the field.

IMPORTANCE

It is important for cadets to be able to identify the wildlife in their province/territory. There are many species of wildlife throughout Canada, and they differ in each province. While on an expedition, cadets may encounter a variety of wildlife in their natural habitats. Most conflicts between man and nature can be avoided by being able to identify wildlife and knowing their specific characteristics. All cadets should be aware of what to do when they come across wildlife in the field.

Teaching Point 1 **Introduce the Cadets to Provincial/Territorial Wildlife**

Time: 40 min Method: In-class Activity

The provincial/territorial wildlife information sheets for this activity are located at Annex A.

The provincial/territorial wildlife worksheet for this activity is located at Annex B.

Cadets should be aware of any provincial/territorial wildlife left out of this activity. If time permits, give the cadets the opportunity to read the remaining information sheets.

ACTIVITY

OBJECTIVE

The objective of this activity is to gain knowledge of some provincial/territorial wildlife that cadets may encounter when in the field.

RESOURCES

- Provincial/territorial wildlife information sheets;
- Provincial/territorial wildlife worksheets; and
- Pens/pencils.

ACTIVITY LAYOUT

Four learning stations will be set up and clearly marked for each of the chosen wildlife and will include:

- provincial/territorial wildlife information sheets, which will include:
  - the general description;
  - the habitat;
  - the diet; and
  - any unique characteristics;
- provincial/territorial wildlife worksheets; and
- pens/pencils.

ACTIVITY INSTRUCTIONS

1. Divide cadets into four groups and place each group at one of the wildlife learning stations.
2. Assign each group a leader. The group leader will be responsible for assigning tasks to fellow cadets. Each station will need a recorder and a reader.
3. Cadets will have eight minutes at each station to fill out a provincial/territorial worksheet (it is only necessary for each group to fill out one worksheet).
4. After eight minutes, the groups will rotate clockwise to the next station, where they will have another eight minutes to complete a provincial/territorial worksheet.
5. Rotate the groups through the remaining stations.
6. Have the cadets share the information they recorded from the station they have just completed with the rest of the cadets. In most cases, the groups will have recorded the same information for each station. If a group has listed different information, it will be shared after the presenting group has finished.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 1

The cadets' participation in the activity will serve as the confirmation of this TP.

Teaching Point 2 **Discuss Potential Risks of Animals in the Field**

Time: 10 min Method: Interactive Lecture

The word "attack" is referred to numerous times throughout this TP. Ensure cadets are aware that an attack is a form of violence and does not always indicate injury or harm.

Though attacks are uncommon, stress the importance of knowing what to do if the situation ever arises.

BEARS

Bear attacks are uncommon. Wild animals generally prefer to avoid human contact and bears are no exception. Most documented encounters occurred when the bear's natural avoidance behaviour shifted to aggression. This shift is normally caused from one, or a combination of, the following:

- They are suddenly surprised.
- They are protecting young or food.
- They follow food and food-like odours to humans.
- They are provoked by other animals (e.g. dogs).
- They are accustomed to people and have lost their natural fear.

The best way to live safely with bears is to avoid contact with them. There are important prevention actions that can be taken, such as:

- making noise;
- hiking in groups and mainly in the daylight;
- staying on established trails;
- using extra caution when travelling near rushing water or into the wind;
- staying in open area as much as possible; and
- disposing of garbage frequently, in designated areas.

When hiking/training in an area that has bears, always have bear spray or pepper spray on hand.

If you carry bear spray, be aware that wind, spray distance, rain, freezing temperatures, and product shelf life can all influence its effectiveness.

When a Bear Attacks

According to Parks Canada there are two kinds of attacks, based on the bear's behaviour—defensive and predatory.

Defensive Attack. This attack normally occurs when the bear is feeding, protecting its young and/or unaware of a person's presence. It attacks mainly because it sees the person as a threat. It is the most common type of attack.

Predatory Attack. This attack normally occurs when the bear is stalking a person along a trail and then attacks. It may also happen at night.

In Tawrell, P., *Camping and Wilderness Survival*, Leonard Paul Tawrell states the following actions to take when a **black bear** attacks.

- Do not play dead.
- Fight back – hit its snout, try to poke a stick in its eye, throw dirt or rocks into its eyes, do anything to distract attention.
- Do not climb a tree or run. Black bears can climb trees very fast!

In Tawrell, P., *Camping and Wilderness Survival*, Leonard Paul Tawrell states the following actions to take when a **grizzly bear** attacks.

- Play dead by lying flat on the stomach with legs spread out, cover the neck with intertwined fingers, and have elbows covering the face. Spread the legs out to prevent the bear from rolling you over.
- Do not attempt to run, as the bear can outrun you and the action of running will trigger the bear's predatory instinct.
- If the bear rolls you over, keep rolling to land on the stomach.
- At this point the bear might get bored and leave. Do not move until it is clear that the bear has left. It might only be lying nearby and resting.
- If the bear starts to lick your wounds, the attack has turned very serious and fighting back is necessary. Try hitting it on its snout or poking a stick or finger in its eyes.

There are bear-specific characteristics to note.

Black Bears. Black bears have been known to be on the lookout for “easy” calories. Once they find human food or garbage (if they are food-conditioned), they continue to seek it out from backpacks, picnic tables, coolers, etc. When accustomed to humans, their natural fear fades and they take more chances to find food.

Grizzly Bears. The most common circumstance of attack is the “sudden encounter“. To decrease chances of coming into a conflict, regularly make noise when hiking.

Polar Bears. Polar bears have been known to stalk humans as prey. They do not generally attack, but if someone is alone, they are easy prey for a hungry polar bear. When in polar bear country, a firearm is essential for safety.

WOLVES

Most people will never see a wolf; they are shy and generally avoid humans. Wolves can, however, lose their fear of humans and may approach camping areas or homes.

Attacks by healthy wild wolves do occur but are rare. The majority of attacks have been from rabid wolves.

Preventative actions include:

- Never feed wolves or any other wildlife.
- Dispose of all garbage.
- Ignore them as much as possible if they come into sight.
- Never allow a wolf to get close.
- Never approach a wolf.

According to the International Wolf Centre, if a wolf acts aggressively (growls or snarls) or fearlessly, actions that should be taken include:

- raising and waving arms to appear larger;
- backing away slowly with back turned;
- making noise; and
- throwing objects.

There has never been a documented case of a healthy, wild wolf killing a person in North America. Most wolves are not dangerous to humans. Injuries that have occurred by wolves have been caused by a few wolves that became fearless of humans due to habituation (wolves becoming too comfortable in human inhabited areas).

COYOTES

Unlike wolves, coyotes do not have a natural fear of human beings. In highly populated areas, they are often seen patrolling, looking for garbage or small animals. Coyotes that are being fed will often bite, sometimes seriously.

Preventative actions include:

- Never feed coyotes or any other wildlife.
- Dispose of all garbage.
- Supervise children closely.
- Keep pets inside at night.
- Never approach a coyote.

According to the Government of Manitoba – Manitoba Conservation, if a person encounters a coyote actions that should be taken include:

- stopping immediately and remaining calm;
- raising and waving arms to appear larger;
- backing away slowly if it is not looking in the direction; and
- throwing stones or other objects.

Never turn away from a coyote or run since this will encourage a coyote to chase. If a coyote ever attacks, fight back.

COUGARS

Cougar attacks are unlikely among humans, partially because cougars do not perceive humans as prey. Cougar populations are growing throughout western Canada. Females with kittens and those that are cornered, surprised or feeding on a kill may act aggressively. Cougars often show curiosity toward human activities without behaving aggressively.

Cougars may display various behaviours as a warning before an attack, such as stalking, crouching, sweeping their tail, extending their eye contact, snarling, keeping their body low to the ground, and pumping their rear legs.

Some preventative actions include:

- Do not hike alone.
- If confronted, stay calm and do not run; it may stimulate the instinct to chase.
- Maintain eye contact and shout as calmly as possible.
- Try to appear larger by raising and waving arms.
- Arm yourself with a stick.
- Never turn your back.
- Do not “play dead”.
- Throw rocks.

In Tawrell, P., *Camping and Wilderness Survival*, Leonard Paul Tawrell states if a cougar attacks, fight back aggressively using any object nearby such as sticks or rocks.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. What are some preventive actions to take against a bear attack?

Q2. What action should be taken if a wolf growls or snarls at you?

Q3. What steps should be taken if you encounter a cougar?

ANTICIPATED ANSWERS

A1. Some preventive actions include:

- making noise;
- hiking in groups and in daylight;
- staying on established trails;
- using extra caution when travelling near rushing water or into the wind;
- staying in open area as much as possible; and
- disposing of garbage frequently, in designated areas.

A2. If a wolf acts aggressively (growls or snarls) or fearlessly, the following actions should be taken, such as:

- raising and waving arms;
- backing away slowly with back turned;
- making noise; and
- throwing objects.

A3. Preventative actions for cougar encounters include:

- Do not hike alone.
- If confronted, stay calm and do not run; it may stimulate the instinct to chase.
- Maintain eye contact and shout as calmly as possible.
- Try to appear larger.
- Arm yourself with a stick.
- Never turn your back.
- Do not “play dead”.
- Throw rocks.

END OF LESSON CONFIRMATION

The cadets’ participation in the activity in TP1 will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Recognizing provincial/territorial wildlife is an important aspect of field training. Since cadets spend time training and hiking in the field, it is essential to recognize the wildlife that are present as well as to know how to coexist with them.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

C0-111 (ISBN 978-0-9740820-2-8) Tawrell, P. (2006). *Camping and Wilderness: The Ultimate Outdoors Book* (2nd ed.). Lebanon, NH: Leonard Paul Tawrell.

C0-121 Canadian Wildlife Service and Canadian Wildlife Federation. (2007). *Hinterland Who's Who – Species*. Retrieved 26 February 2007, from http://www.hww.ca/hww.asp?id=1&pid0.

C0-122 (ISBN 0-618-15313-6) Bowers, Nora, Bowers, Rick, and Kaufman, Kenn. (2004). *Kaufman Focus Guides: Mammals of North America*. New York, NY: Houghton Mifflin Company.

C2-043 The Hunting Outfitters. (2007). *The Hunting Outfitters*. Retrieved 9 February 2007, from http://www.huntingoutfitters.com.

C2-059 Parks Canada. (2007). *Bears and People: A Guide to Safety and Conservation on the Trail*. Retrieved 5 March 2007, from http://www.pc.gc.ca/pn-np/inc/PM-MP/visit/visit12a_e.pdf.

C2-060 International Wolf Center. (2003). *Wolves and Humans – Are Wolves Dangerous to Humans?* Retrieved 5 March 2007, from http://www.wolf.org/wolves/learn/basic/pdf/wh_are_wolves_dangerous.pdf.

C2-061 Waterton Park Information Services. (2007). *Reference Information Section*. Retrieved 5 March 2007, from http://www.watertoninfo.com/r/pred.html.

C2-062 International Wolf Center. (2002). *Living with Wolves: Tips for Avoiding Conflicts*. Retrieved 5 March 2007, from http://www.wolf.org/wolves/learn/basic/pdf/wh_avoiding%20_conflict.pdf.

C2-064 Minnesota Trappers Association. (2007). *Canadian Lynx*. Retrieved 12 March 2007, from http://www.mntrappers.com/lynx.html.

C2-074 Manitoba Conservation. (2007). *Living with Wildlife in Manitoba*. Retrieved 25 April 2007, from http://www.gov.mb.ca/conservation/wildlife/problem_wildlife/pdf.coyote.html.

ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 4

EO M221.04 – PERFORM BASIC FIRST AID

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

A demonstration was chosen for TP1 and TP2 as it allows the instructor to explain and demonstrate the skills the cadet is expected to acquire.

A performance was chosen for TP3 as it provides an opportunity for the cadets to practice basic first aid under supervision.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to perform basic first aid for minor wounds and first-degree burns.

IMPORTANCE

It is important for cadets to be able to treat minor wounds and first-degree burns in a field setting. Basic first aid training gives cadets basic knowledge and skills which, if applied correctly, may prevent further injuries and discomfort to the injured.

Knowing what to do during a first aid situation is important. However, cadets shall seek a qualified first-aider whenever an injury occurs.

Teaching Point 1 **Identify and Treat Minor Wounds**

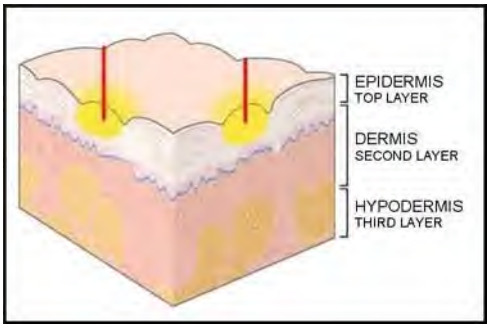
Time: 5 min Method: Demonstration

MINOR WOUNDS

Minor wounds are those that do not have severe bleeding. Bleeding wounds can be internal (inside the body) or external (outside the body). Some common external bleeding wounds are:

- abrasions and scrapes; and
- cuts.

Almost any external bleeding wound can be serious. There is always a risk of infection when the skin's top layer is broken. Knowing how to identify and treat minor wounds is essential to reduce the risk of infection or aggravation.



Irishhealth.com, Copyright 2007 by Irishhealth.com. Retrieved 17 March 2007, from http://irishhealth.com/indez.html?level=4&con=467

Figure 11-4-1 Layers of Skin

Abrasions and Scrapes

Abrasions are located on the top layer of the skin. They occur when the skin is scraped or rubbed away and are often painful. The skin may bleed small amounts of blood.

Cuts

Cuts are breaks in the top or second layer of the skin. There is often some minor bleeding involved.

TheFatManWalking.com, Copyright 2006 by The FatManWalking.com. Retrieved 6 March 2007, fromhttp://www.thefatmanwalking.com/page/65492/;jsessionid=mni5xlvqdm9

Figure 11-4-2 Leg Scrape

TREATMENT OF MINOR WOUNDS

Emergency care for treating minor wounds has three basic objectives:

- to control bleeding;
- to prevent further injury; and
- to reduce the risk of infection.

A cadet should help with a demonstration on the principles of cleaning and treating a wound.

Follow the principles listed below when cleaning and treating a minor wound, to avoid infection.

1. Wash hands with soap and water and put gloves on, if available.
2. Do not cough or breathe directly over the wound.
3. Fully expose the wound, without touching it.
4. Gently wash loose material from the surface of the wound. Wash and dry the surrounding skin with clean dressings, cleaning the wound with clean gauze wiping from the centre of the wound to the edge of the wound. (An antibiotic cream can be used on surface wounds and abrasions).
5. Cover the wound promptly with a sterile dressing.
6. Tape the dressing in place.
7. Remove and dispose of the gloves and wash your hands and any other skin area that may have been in contact with the casualty's blood.

Medline Plus, Medical Encyclopedia, Copyright 2007 by US National Library of Medicine. Retrieved 19 March 2007, fromhttp://www.nlm.nih.gov/medecineplus/ency/presentations/100208_4.htm

Figure 11-4-3 Washing the Wound

Medline Plus, Medical Encyclopedia, Copyright 2007 by US National Library of Medicine. Retrieved 19 March 2007, fromhttp://www.nlm.nih.gov/medecineplus/ency/presentations/100208_4.htm

Figure 11-4-4 Dressing and Taping the Wound

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. Which layer of skin can be affected by a minor wound?

Q2. What is the first thing to do before treating a minor wound?

Q3. When washing the wound, what motion should be used?

ANTICIPATED ANSWERS

A1. Epidermis or top layer can be affected by a minor wound .

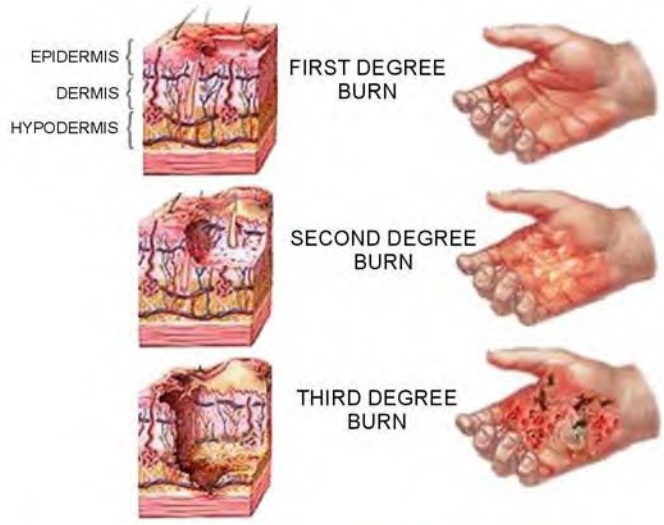
A2. Wash hands with soap and put on gloves.

A3. Wipe away from the centre of the wound to the edge of the wound.

Teaching Point 2 **Identify Types of Burns and Treat First-degree Burns**

Time: 10 min Method: Demonstration

TYPE OF BURNS



Medline Plus, Medical Encyclopedia, Copyright 2007 by US National Library of Medicine. Retrieved 19 March 2007, fromhttp://www.nlm.nih.gov/medecineplus/ency/presentations/100208_4.htm

Figure 11-4-5 Types of Burns

Ask cadets for the signs and symptoms of the various types of burns.

First-degree Burns

These are also called superficial burns and only affect the top layer of skin. Hot liquids, heat, and the sun are the main causes.

Signs and symptoms of a first-degree burn include:

- pinkish-reddish skin;
- slight swelling of the area;
- mild to moderate pain in the area; and
- sore, dry skin.

Trip Report-World Championship in Japan. Retrieved 17 March 2007, from http://homepages.paradise.net.nz/mischief/cp_japan_trip_report.html

Figure 11-4-6 First-degree Burn

Cadets who have been sunburned have had a first-degree burn.

Second-degree Burns

These affect the second layer of skin. Hot liquids, the sun, chemicals, and fire are the main causes.

Signs and symptoms of a second-degree burn include:

- raw-looking, moist skin;
- skin colouring that may range from white to cherry red;
- blisters containing clear fluid; and
- extreme pain in the area.

Sickkids.ca. Copyright 1999 by The Hospital for Sick Children. Retrieved 6 March 2007, from http:// www.sickkids.ca/plasticsurgery/section.asp?s=Burns&sID=4489&ss=About+Burns&ssID=4496

Figure 11-4-7 Second-degree Burn

Third-degree Burns

These affect the third layer of skin and can extend into the muscle. Contact with extreme heat sources (e.g. hot liquids and solids, direct flame, chemicals) and electricity are the main causes.

Signs and symptoms of a third-degree burn include:

- dry, leathery skin;
- pearly white, tan, grey, or charred black skin;
- blood vessels or bone may be visible,
- little or no pain (nerves are destroyed);
- breathing problems; and
- shock.

Sickkids.ca. Copyright 1999 by The Hospital for Sick Children. Retrieved 6 March 2007, from http:// www.sickkids.ca/plasticsurgery/section.asp?s=Burns&sID=4489&ss=About+Burns&ssID=4496

Figure 11-4-8 Third-degree Burn

TREATMENT OF FIRST-DEGREE BURNS

All burns should be brought immediately to a qualified first-aider.

A cadet should help with a demonstration on the principles of cleaning and treating a burn.

Heat Burns

These are the most common types of burns, and are caused by sources of heat such as flames from stoves, lanterns, and fires. A scald is a heat burn caused by hot liquid or steam.

To treat a heat burn:

1. Immerse the burn in cool water (if this is not possible, flush the burn with cool water and cover it with a clean, wet cloth).
2. Cool the burn until the pain is reduced.
3. Avoid the affected area.
4. When the pain has lessened, cover the burn with a clean, lint-free dressing.

5. Seek medical attention, if necessary.

Medline Plus, Medical Encyclopedia, Copyright 2007 by US National Library of Medicine. Retrieved 19 March 2007, from http://www.nlm.nih.gov/medecineplus/ency/presentations/100213_1.htm

Figure 11-4-9 Cooling the Burn

Medline Plus, Medical Encyclopedia, Copyright 2007 by US National Library of Medicine. Retrieved 19 March 2007, from http://www.nlm.nih.gov/medecineplus/ency/presentations/100213_1.htm

Figure 11-4-10 Dressing the Burn

Sunburns. These are also called radiation burns. Sunburns are caused by over-exposure to sunlight and can be prevented by wearing sunscreen of a high sun protection factor (SPF), long sleeves, and wide-brimmed hats. Sunburns range from mild to serious.

SPF indicates the time a person using sunscreen can be exposed to sunlight before getting a sunburn. For example, a person who would normally burn after 12 minutes in the sun would expect to burn after 120 minutes if protected by a sunscreen with SPF 10.

The higher the SPF, the more protection a sunscreen offers against ultraviolet radiation (UV).

To treat a minor sunburn:

- seek shade;
- gently sponge the area with cool water;
- cover the area with a cool wet towel;
- repeat as needed to relieve pain;
- pat the skin dry;

- apply medicated sunburn lotion (ointment); and
- seek medical attention, if necessary.

Blisters caused by sunburns should not be broken.

Fevers and vomiting indicate serious sunburn and medical attention should be sought immediately.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. What is the most common first-degree burn a cadet can suffer?

Q2. Name two signs or symptoms of a third-degree burn.

Q3. What is the first thing to do in a case of heat burn?

ANTICIPATED ANSWERS

A1. Sunburn.

A2. Dry, leathery skin; pearly white, tan, grey, or charred black skin; blood vessels or bone may be visible; little or no pain (nerves are destroyed); breathing problems and shock.

A3. Immerse the burn in cool water, flush the burn with cool water or apply a wet cloth. The burn should be cooled until the pain is reduced.

Teaching Point 3 **Perform Basic First Aid**

Time: 10 min Method: Performance

ACTIVITY

OBJECTIVE

The objective of this activity is to allow cadets to practice performing basic first aid on simulated minor wounds and burns.

RESOURCES

- Gauze;
- Gloves;
- Scissors;
- Sterile dressing; and
- Tape.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Divide cadets into pairs.
2. Have one cadet perform first aid for a minor wound (arm or hand) and after, have the other cadet perform first aid for a burn (arm or hand).
3. Rotate through the pairs and make corrections as required.
4. Upon completion, review procedures for treating a minor wound and a first-degree burn.

SAFETY

N/A.

END OF LESSON CONFIRMATION

The cadets' participation in the in-class activity in TP3 will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

On expeditions, injuries can occur quickly and without warning. The ability to react quickly by providing on-site help will reduce the discomfort level of the injured person until medical attention is available.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

C0-102 (ISBN 1-894070-56-9) St. John Ambulance. (2006). *First Aid Training: First on the Scene Student Reference Guide*. Ottawa, ON: St. John Ambulance.

C0-123 St. John Ambulance Canada. (2004). *Seasonal Safety Tips: September 2004 Be Casual, Not a Casualty*. Retrieved 27 February 2007 from http://www.sja.ca/English/safety_tips/September.asp.

ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 5

EO M221.05 – TIE KNOTS

Total Time: 90 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Make copies of knot-tying instructions, located at Annex C.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

A practical activity was chosen for TP1 as it is an interactive way to allow cadets to experience tying knots. This activity contributes to the development of knot-tying skills and knowledge in a fun and challenging setting.

Demonstration and performance was chosen for TP2 and TP3 as it allows the instructor to explain and demonstrate knot-tying while providing an opportunity for the cadets to practice knot-tying under supervision.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to coil a rope and tie the following knots:

- bowline;
- fisherman’s knot;
- double fisherman’s knot; and
- double overhand running knot.

IMPORTANCE

It is important for cadets to know how to tie knots and work with rope. Knots can be used during field training, for building shelters, securing equipment, and also in everyday life.

Teaching Point 1 **Review Green Star Knots**

Time: 20 min Method: Practical Activity

Refer to EO M121.03 (Tie Knots and Lashings) for knot-tying instructions.

ACTIVITY

OBJECTIVE

The objective of this activity is to review knots instructed in Green Star. The cadets must have a good knowledge of these knots before moving on to other knots.

RESOURCES

- Six pieces of rope for tying knots (per group);
- Six railings or dowels for tying hitches;
- Sheet of flipchart paper/blackboard/whiteboard; and
- A marker/chalk.

ACTIVITY LAYOUT

An area must be chosen, large enough to accommodate the entire group.

ACTIVITY INSTRUCTIONS

1. On a sheet of flipchart paper/blackboard/whiteboard write the following knots:
   - thumb (overhand);
   - reef (square);
   - figure of eight;
   - double figure of eight;
   - clove hitch; and
   - half hitch.
2. Divide the cadets into equal groups of no more than ten cadets.
3. Within each group, pair up the cadets. If there is an uneven number, a person will have to be paired up twice, so that everyone has a partner. Pairs must have the same dominant hand (two right-handed cadets or two left-handed cadets).

4. All cadets are to stand in line, in their groups, facing their partner.

5. Once instructed to begin, each pair of cadets will begin to tie the listed knots (in the order that they appear). Each cadet will only be allowed to use their dominant hand to tie the knots. The pair will have to work together, both only with one hand.

6. Knot-tying will begin with the first pair. Once they have the knot tied, they will untie it, and then pass the rope to the next pair in their group. Upon receiving the rope, the next pair may begin to tie the first knot. The first pair will tie the next knot on the list, then untie it, and pass the piece of rope down, and so on. Pairs may begin tying as soon as they have been given the rope.

7. Once all knots have been tied, the pair may sit and begin to cheer on the rest of their group.

If there are an uneven number of cadets, the cadets who will be in two groups should be placed at the front of the line and the other cadets should be placed at the back. Once the first pairs are finished, the cadets can move to the back to complete the activity again.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 1

The cadets' participation in the activity will serve as the confirmation of this TP.

Teaching Point 2 — **Explain the Uses of, Demonstrate, and Allow Time to Practice Tying Knots**

Time: 50 min — Method: Demonstration and Performance

Provide an explanation and demonstration of the complete knot and then break the knot down into its steps.

Provide a demonstration of each step and have the cadets complete each step. Ensure the cadets have enough time to complete each step.

Each knot must be instructed individually. Distribute handouts with tying instructions (located at Annex C).

A review of the parts of a rope, from EO M121.03 (Tie Knots and Lashings) may be required before beginning TP2.

BOWLINE

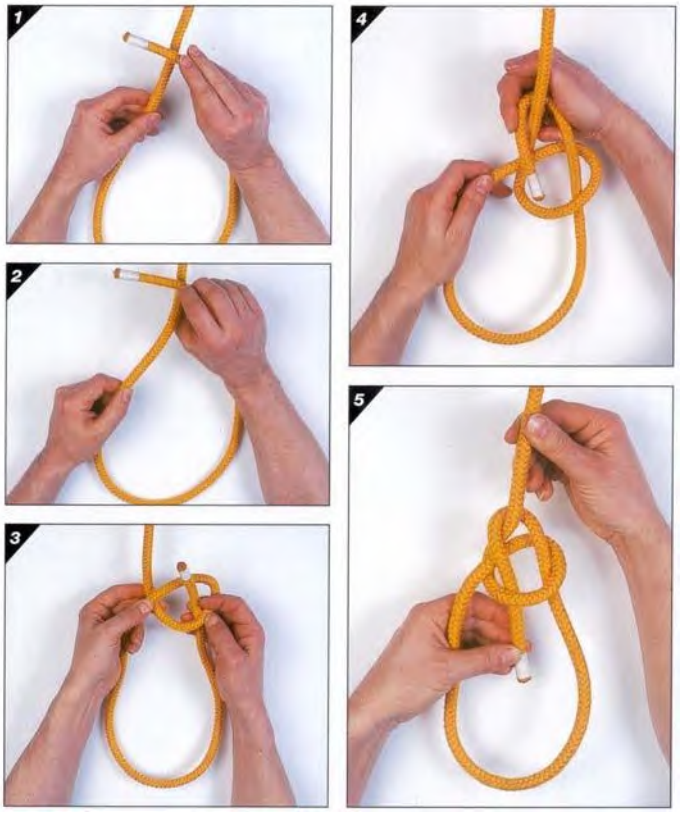
Uses. In climbing, it is used as a safety measure during ascent and is clipped into the carabiner. It is often called the rescue knot because it makes a simple loop that does not slip. It can be used to tie around yourself, to throw to someone who needs a lifeline, or to secure objects (such as canoes to a wharf).

Qualities. It does not slip, come loose, or jam.

Faults. It is difficult to untie when the rope is under strain.

Procedure

1. With the standing part of the rope away from you, take the working end in your right hand and place it on top of the standing part.
2. Put your thumb under the standing part.
3. Twist your right hand 180 degrees away from you, to form a simple over hand loop (looks like a number six), and pull the working end up through.
4. Take the working end round behind the standing part.
5. Bring the working end down through the loop. Tighten the bowline by holding on to the bight formed by the end and pulling hard on the standing part.



Pawson, D., Pocket Guide to Knots & Splices, Chartwell Books, Inc. (p. 164)

Figure 11-5-1 Bowline

FISHERMAN'S KNOT

Uses. To join two pieces of rope together. It is commonly used by anglers and climbers.

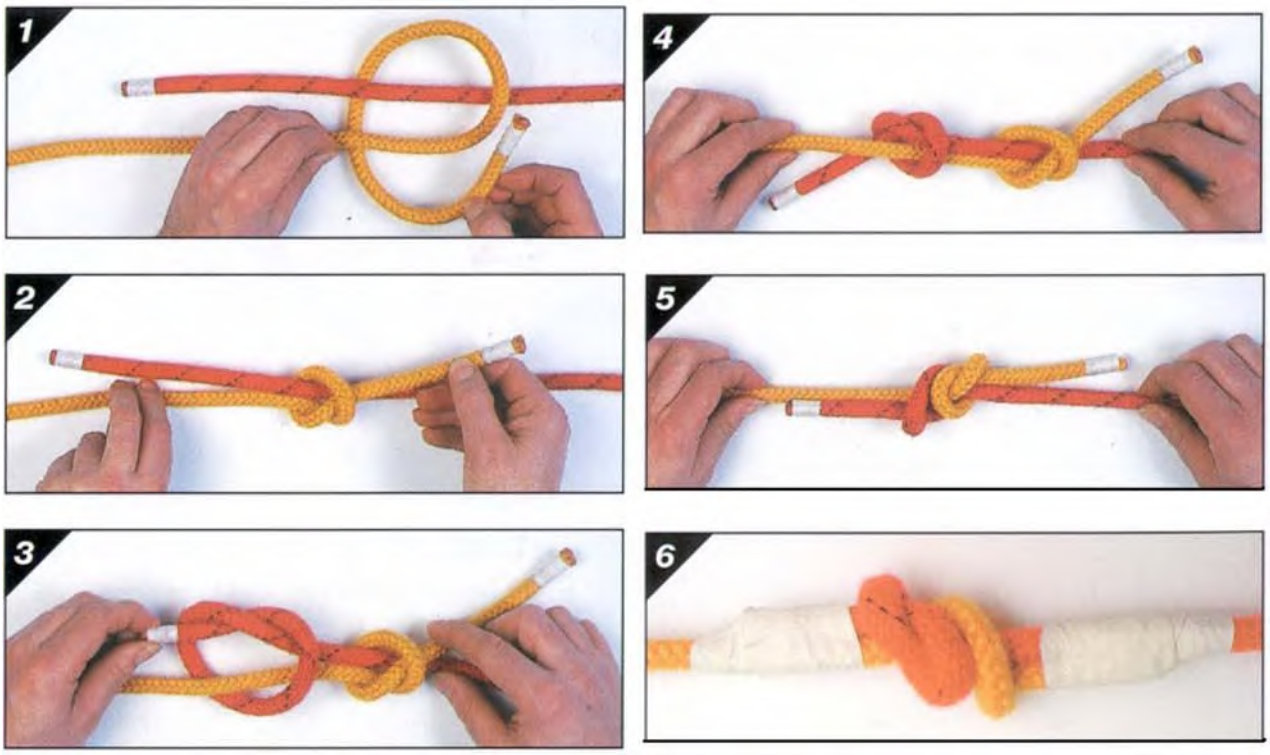
Qualities. It does not slip, come loose, or jam.

Faults. It is difficult to untie when fine rope is used.

Procedure

1. Lay the ropes alongside each other, end to end. Take one of the ropes and bring it over the other and under itself.

2. Make an overhand knot around the second rope.
3. Make an overhand knot around the standing part of the first rope.
4. Slide together to complete the knot.
5. Tighten to finish the fisherman's knot.
6. Tape ends if used in climbing to avoid slipping.



Pawson, D., Pocket Guide to Knots & Splices, Chartwell Books, Inc. (p. 116)

Figure 11-5-2 Fisherman's Knot

DOUBLE FISHERMAN'S KNOT

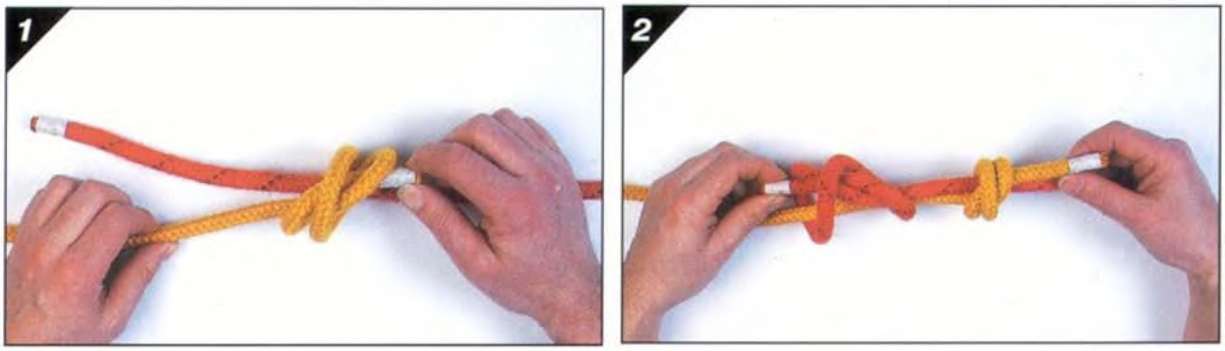
Uses. To join two pieces of rope together. It is commonly used by anglers and climbers. It is ideal for slippery line or rope.

Qualities. It does not slip, come loose, or jam.

Faults. It is difficult to untie when fine rope is used.

Procedure

1. With the first rope, make a double overhand knot around the body of the second rope.
2. Make a double overhand knot around the body of the first rope.
3. Pull tight and slide together. The knots should make "X's" on the same side.



Pawson, D., Pocket Guide to Knots & Splices, Chartwell Books, Inc. (p. 117)

Figure 11-5-3 Double Fisherman's Knot Steps 1 and 2

40th Fife Scout Troop, 2007, Knotting the Thumb Knot. Retrieved 3 May 2007, from http://www.users.zetnet.co.uk/whitelaw/knots/dfish.jpg

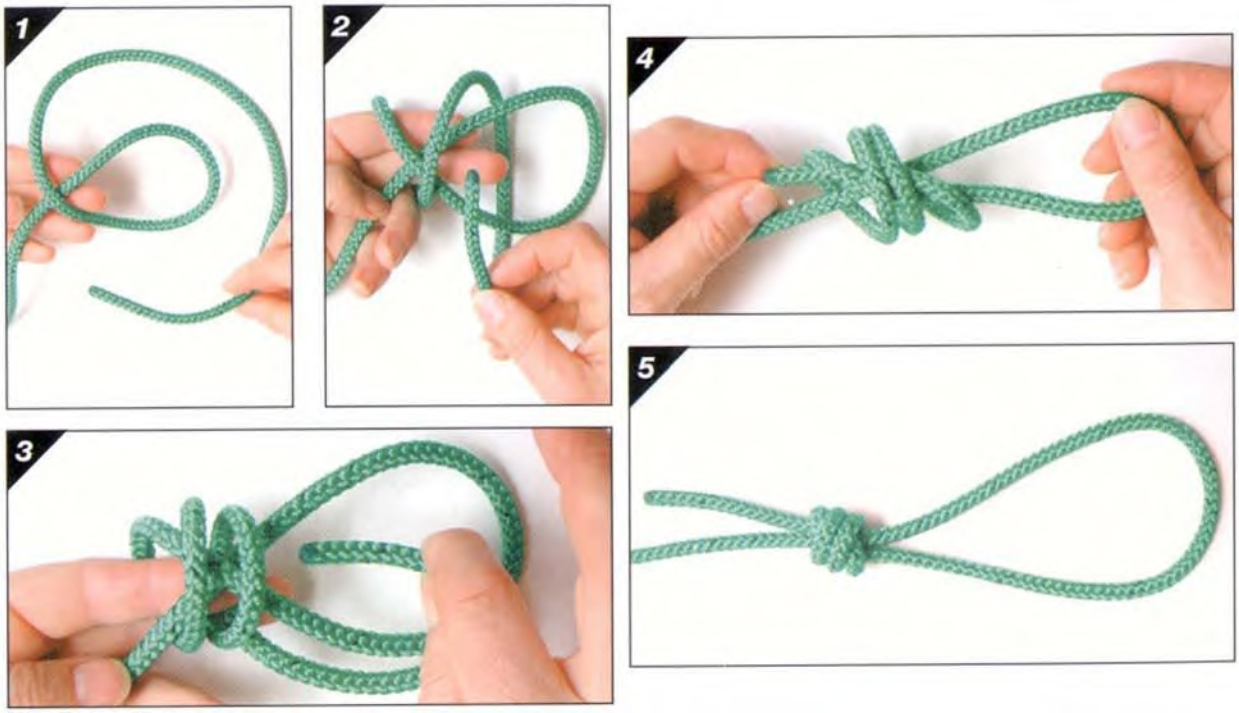
Figure 11-5-4 Double Fisherman's Knot Step 3

DOUBLE OVERHAND RUNNING KNOT

Uses. This sliding loop grips tightly around an object. It is ideal for fixing a lanyard fast to the arms of sunglasses or spectacles so they can hang around a person's neck when not in use.

Procedure

1. Make a loop with a fairly long working end on top.
2. With fingers parallel to the standing part, wrap around the standing part three times.
3. Put the working end down through the "tunnel" where the fingers are.
4. Tighten the turns by pulling on the working end, working the turns snugly together.



Pawson, D., Pocket Guide to Knots & Splices, Chartwell Books, Inc. (p. 177)

Figure 11-5-5 Double Overhand Running Knot

The same knot must be made at the other end of the rope in order to fix it to the arms of sunglasses or spectacles. When two knots are made, the knots can be easily adjusted by pulling on each end to the desired length.

CONFIRMATION OF TEACHING POINT 2

Tie the following knots:

- bowline;
- fisherman's knot;
- double fisherman's knot; and
- double overhand running knot.

Teaching Point 3 **Explain the Uses of, Demonstrate, and Allow Time to Practice Coiling a Rope**

Time: 10 min Method: Demonstration and Performance

COILING A ROPE

Ropes should always be coiled because it makes rope storage neat and compact. Otherwise, they will become a mass of knots and tangles. Any rope that is being coiled should be clean and ready to be put away.

Procedure

1. Coiling will be clockwise; however, this may differ for left-handed people. Run your coiling hand (dominant) along the rope until you have about an arm span of rope.
2. Bring your dominant hand towards your holding hand and use your index finger and thumb to twist the line in the direction that the coil is going. Normally, a 180 degree or 360 degree twist will suffice. This will ensure that the rope does not twist or kink when in the coil.
3. Lay the rope into your holding hand. There should be no kinks in the coil.
4. Steps 1–3 will be repeated until there is approximately one metre of rope left.
5. Take the last length of rope and wrap it three or four times around the outside of the coils that were previously made.
6. Make a loop with the remaining rope and thread it through the upper area between the coils and the wraps (not all the way).
7. Open the loop over the top of the coil.
8. Tighten the loop by pulling on its end. The rope is now coiled.

Bigon, M. and Regazzoni, G. The Morrow Guide to Knots, Quill/William Morrow (p. 23)

Figure 11-5-6 Coiling a Rope

The dominant hand will be the coiling hand; the non-dominant hand will hold the coiled rope. Prior to beginning, take one end of the rope into the non-dominant hand. Let the end fall about six inches out of your hand, towards you.

CONFIRMATION OF TEACHING POINT 3

The cadets' participation in coiling a rope will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in tying knots and coiling a rope will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Knowing what knots to tie when situations arise is an important aspect of field training and can also be used in everyday life. Being able to construct a quality knot will prove useful in a variety of situations such as climbing, towing, and even making a glasses strap or a strap for sunglasses when other means are not available.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

C2-007 (ISBN 0-7858-1446-9) Pawson, D. (2001). *Pocket Guide to Knots and Splices*. Edison, NJ: Chartwell Books, Inc.

C2-073 (ISBN 0-688-01226-4) Bigon, M. and Regazzoni, G. (1982). *The Morrow Guide to Knots*. New York, NY: Quill/William Morrow.

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ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 6

EO M221.06 – CONSTRUCT A HOOCHIE SHELTER

Total Time: 90 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Prior to the lesson, select a site that exemplifies the factors to consider when selecting a site for a hoochie shelter. A hoochie shelter may be constructed prior to beginning this lesson, for illustration purposes.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

Interactive lecture was chosen for TP1 to present basic or background material on constructing a hoochie shelter.

Demonstration was chosen for TP2 and TP3 to allow the instructor to explain and demonstrate constructing a hoochie shelter.

Performance was chosen for TP4 as it provides an opportunity for the cadets to practice constructing a hoochie shelter under supervision.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to construct and tear down a hoochie shelter.

IMPORTANCE

It is important for cadets to know how to construct and tear down a hoochie shelter as a method of creating a minimalist shelter during expeditions. In some instances, during expeditions, cadets may prefer to use a lightweight tarp or hoochie shelter for protection from the elements as well as from insects and animals rather than a tent, which would be much heavier.

Teaching Point 1 **Explain Factors to Consider When Selecting a Hoochie Site**

Time: 10 min Method: Interactive Lecture

Have a pre-selected site prepared to construct a hoochie shelter. The area must exemplify factors to consider when selecting a hoochie site.

When selecting a site for a hoochie shelter, the following factors should be considered:

- Two trees approximately two metres (six feet) apart, will provide adequate space for a shelter.
- Cover will provide protection from the elements.
- An elevated area will allow for water drainage.
- Flat ground will provide a comfortable sleeping surface.
- A sheltered area will provide protection from the wind and direct sunlight.
- Checking for dead trees and tree limbs in the immediate area will reduce potential dangers and risks.

Although trees may offer protection, they can be dangerous. Avoid trees with dead branches or on windswept fields, especially trees that lean at pronounced angles. Check above and around the tent site, as trees and branches may fall and hurt or kill someone.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. When selecting a site for a hoochie shelter, how far apart should the trees be?

Q2. Why should the site be on an elevated area?

Q3. When selecting a site, what should one check for to reduce potential dangers and risks?

ANTICIPATED ANSWERS

A1. The two trees should be approximately six feet apart.

A2. An elevated area will allow for water drainage.

A3. Checking for dead trees and tree limbs in the immediate area will reduce potential dangers and risks.

Teaching Point 2 **Explain and Demonstrate the Procedure for Constructing and Tearing Down a Hoochie Shelter**

Time: 20 min Method: Demonstration

This TP should be delivered as the hoochie shelter is constructed. Demonstrate and explain each step.

A previously constructed shelter may be used for illustration.

CONSTRUCTING A HOOCHIE SHELTER

Checking the Groundsheets

Prior to commencing construction, all materials should be checked for fatigue and wear, especially the two groundsheets, to include:

- Groundsheets should not have holes that would allow rain or other objects into the completed shelter.
- The rubberized interior coating on groundsheets should be checked for deterioration and flaking, which results from age and being stored when still wet.
- Ensure that the two zippers match up and will form a strong bond. Different manufacturers of the groundsheets may use different zippers, which may not fit together properly.
- Grommets on each groundsheet should be in good repair so they can hold pegs/twine effectively.

D Cdts 3, 2006, Ottawa, ON: Department of National Defence

Figure 11-6-1 Grommet

Zipping the Groundsheets Together

The two groundsheets are zipped together to form a sufficient bond. Ensure that the two zippers are the same length and are not worn out because the bond may be compromised.

D Cdts 3, 2006, Ottawa, ON: Department of National Defence

Figure 11-6-2 Zipping Groundsheets

D Cdts 3, 2006, Ottawa, ON: Department of National Defence

Figure 11-6-3 Joining Groundsheets

Tying the Shelter to Trees

Tie each end of the zipped together groundsheets to the two trees by passing the twine through the grommets located at each end of the zipper. A knot that is reliable and will provide stability shall be used such as clove hitch or the overhand knot. The shelter should be tied as high as the waist of the tallest occupant. If tied to the correct grommets the flap of material over the zipper will naturally sit covering the zipper.

D Cdts 3, 2006, Ottawa, ON: Department of National Defence

Figure 11-6-4 Joined Groundsheets

D Cdts 3, 2006, Ottawa, ON: Department of National Defence

Figure 11-6-5 Tying the Shelter to a Tree

Securing the Groundsheets Between Trees

The shelter, built at waist height, will allow enough head room for someone to sit upright, when completed. The two groundsheets should be pulled as tight as possible between the two trees. This tightness will prevent rain from collecting and will stop the shelter from sagging after extended use. When tying the shelter, ensure that the flap at the peak of the shelter covers the zipper. Make certain there is enough room on one of the ends for an entrance and exit.

D Cdts 3, 2006, Ottawa, ON: Department of National Defence

Figure 11-6-6 Securing Groundsheets

D Cdts 3, 2006, Ottawa, ON: Department of National Defence

Figure 11-6-7 Pegging the Grommets

Pegging the Grommets

Two grommets are located down the centre of each groundsheet. Twine may be used to tie these grommets to surrounding trees. To create more space in the shelter, tie the grommets to a branch that crosses the apex of the hoochie or use twine and sticks to peg them into the ground.

Pulling the Groundsheets Taut (Tight)

Any objects that will secure each corner of the groundsheets 5 cm above the ground will be sufficient to use as pegs. After the corners are pegged, peg the remaining grommets on each side. When each side of the shelter is pegged, it should result in a flush, taut surface with no wrinkles. This taut surface will allow for efficient run-off of rain.

D Cdts 3, 2006, Ottawa, ON: Department of National Defence

Figure 11-6-8 Groundsheets Pulled Taunt

TEARING DOWN A HOOCHIE SHELTER

Tearing down a hoochie shelter will be conducted during the tear down of the bivouac site. The cadets shall, under supervision, tear down their hoochie shelter with their partner.

Tearing down a hoochie takes much less time than constructing one.

To tear down a hoochie:

1. Take all personal equipment out of the hoochie shelter.
2. Cut the twine tying the hoochie shelter to the trees.
3. Pull the pegs from the ground.
4. Pull/cut off any twine used to tie the grommets to the pegs. Make sure there are no sticks left in the grommet holes.
5. Unzip the groundsheets. Shake off any dirt and debris that may have fallen on it.
6. Fold the groundsheets.

7. Return the ground to its original state and clean up garbage.

Groundsheets **must be dry** before they can be folded and stored. They may have to be laid out to dry.

Depending on the quartermaster, groundsheets may be folded or rolled. All must be folded or rolled in the same way and tied so they will not come apart.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. Why do groundsheets need to be checked prior to setting up a hoochie shelter?

Q2. How high should the shelter be tied?

Q3. How high off the ground should a hoochie be pegged?

ANTICIPATED ANSWERS

A1. Groundsheets need to be checked for fatigue and wear.

A2. Shelters should be at waist height of the tallest occupant.

A3. A hoochie should be pegged 5 cm off the ground.

Teaching Point 3 **Explain and Demonstrate Setting Up Personal Space**

Time: 5 min Method: Demonstration

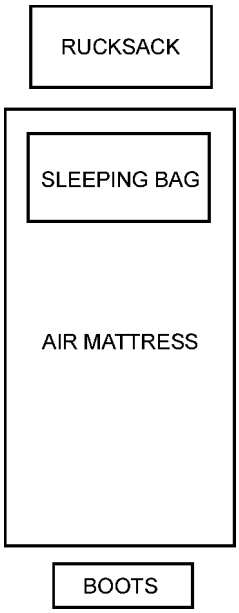
SETTING UP PERSONAL SPACE

Air Mattress. The air mattress will be placed down the sides of the hoochie shelter.

Sleeping Bag. The sleeping bag will be rolled up and placed at the top of the air mattress. It can be unrolled at bed time.

Rucksack. The rucksack will be placed at the head of the air mattress.

Boots. Boots will be placed at the end of the air mattress, by the entrance.



D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 11-6-9 Personal Sleeping Space

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

Q1. Will the sleeping bag be rolled or unrolled on the air mattress?

Q2. Where is the rucksack placed?

Q3. Where will boots be placed?

ANTICIPATED ANSWERS

A1. The sleeping bag will be rolled on the air mattress, until you are ready for bed.

A2. The rucksack is placed at the head of the air mattress.

A3. Boots will be placed at the end of the air mattress, by the entrance.

Teaching Point 4 **Construct a Hoochie Shelter**

Time: 45 min Method: Performance

ACTIVITY

OBJECTIVE

The objective of this activity is for the cadets to construct a hoochie shelter.

RESOURCES

- Groundsheets (one per cadet);

- Sleeping bag (one per cadet);
- Air mattress (one per cadet);
- Twine or bungee cord;
- A knife (one per two cadets); and
- Sticks for pegging.

ACTIVITY LAYOUT

Choose an area in which each pair of cadets can set up a hoochie shelter between two trees that are approximately two metres (six feet) apart.

ACTIVITY INSTRUCTIONS

1. Divide cadets into pairs (same gender).
2. Assign each pair the required resources.
3. Have cadets gather sticks for pegging.
4. Have cadets construct a hoochie.
5. Have cadets organize their personal space.
6. Cadets will check their hoochie shelters to ensure:
   a. there is room for two people to sleep and sit upright;
   b. the lines are secure; and
   c. it is waterproof.

SAFETY

- Cadets will respect boundaries for the activity.
- Cadets will ensure safe tool use at all times.

Inspect the cadets' hoochies to ensure they are well constructed and safe to sleep in.

CONFIRMATION OF TEACHING POINT 4

The cadets' participation in the activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in constructing a hoochie shelter and setting up personal space will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Constructing a hoochie is an important skill for Army Cadets. Shelter allows the cadet to stay comfortable and protected while participating in expeditions and weekend bivouac FTXs.

INSTRUCTOR NOTES/REMARKS

Tearing down a hoochie shelter will be confirmed during the tear down of the bivouac site.

REFERENCES

C2-004 (ISBN 1-896713-00-9) Tawrell, P. (1996). *Camping and Wilderness Survival: The Ultimate Outdoors Book*. Green Valley, ON: Paul Tawrell.

C2-008 (ISBN 0-00-265314-7) Wiseman, J. (1999). *The SAS Survival Handbook*. Hammersmith, London: HarperCollins Publishers.

ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 7

EO M221.07 – USE SECTION EQUIPMENT

Total Time: 60 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Divide cadets into groups as resources allow.

Coleman stoves and lanterns will be fuelled prior to this lesson.

Obtain logs for cadets to chop and saw.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TP1 and TP3 to introduce the safe handling of section equipment when participating in a weekend bivouac FTX.

Demonstration and performance was chosen for TP2, TP4 and TP5 as it allows the instructor to explain and demonstrate the uses of section equipment while providing an opportunity for the cadets to operate this equipment under supervision.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to use section equipment to include lighting and extinguishing a two-burner stove and a dual-mantle lantern. Cadets are also expected to employ safe tool use.

IMPORTANCE

It is important for cadets to know how to use section equipment to prevent accidents and injuries, and to increase the life of equipment.

Teaching Point 1 **Identify the Characteristics of the Two-burner Stove**

Time: 5 min Method: Interactive Lecture

The Coleman two-burner stove Model M425F710C was used in the production of this lesson. However, instructors may substitute another stove when conducting this lesson.

CHARACTERISTICS

The following are characteristics of the Coleman two-burner stove:

- It is capable of operating with a clean, smokeless flame.
- The flame can be quickly extinguished.
- It is easily ignited in cold weather.
- It does not rattle when packed.
- It is easy to refuel.
- It has no noxious odours.
- Fuel in the tank will not spill when being carried in any position.
- It cools off quickly.
- It is easily cleaned and repaired.

Operational Temperature

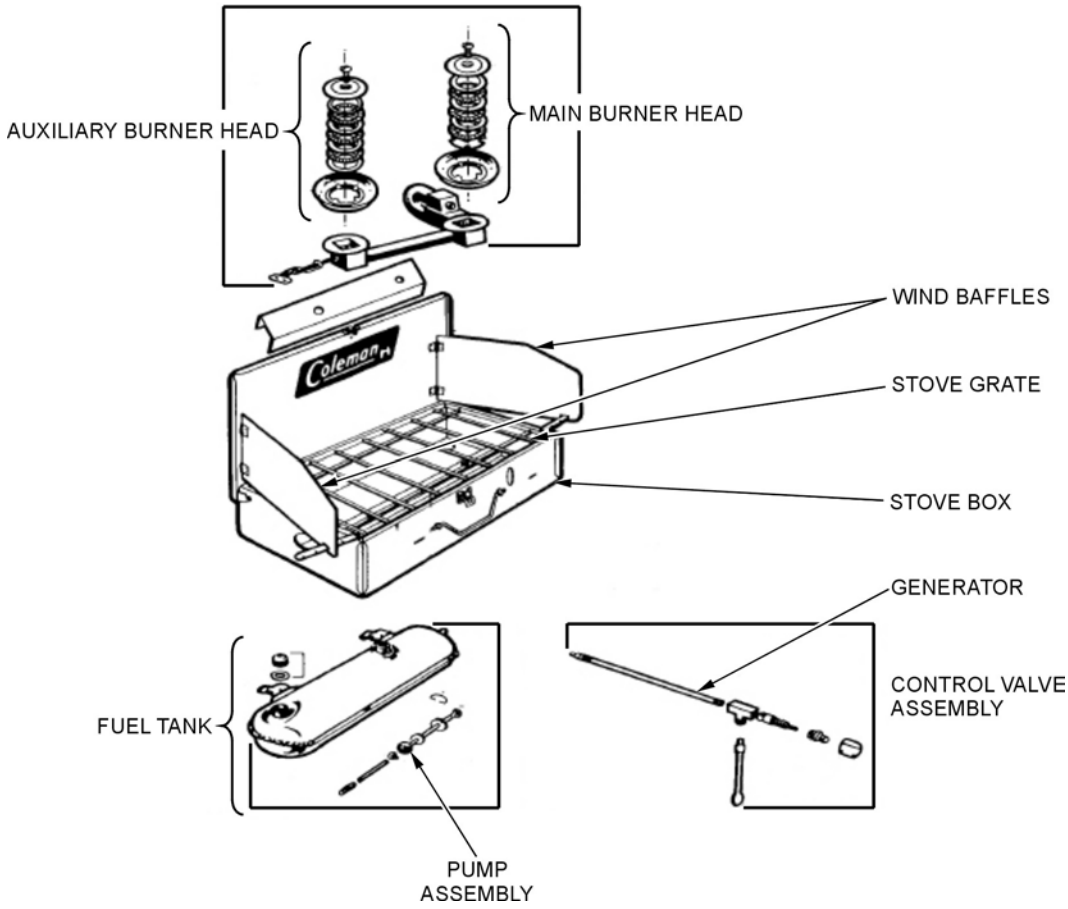
The Coleman two-burner stove, when shielded from the wind, can be used in temperatures as low as -52° C.

Fuel Type

The stove uses naphtha.

Parts and Accessories

The diagram provided is for part identification, not disassembly purposes.



B-GG-302-002/FP-001, Basic Cold Weather Training: Arctic and Sub-arctic Operations (Vol. 2) (p. 2-75)

Figure 11-7-1 Parts of the Coleman Two-burner Stove

Stove Box. This is the container in which the burners are stored along with the fuel tank and generator.

Control Valve Assembly. This consists of the valve wheel, nut and body. Its function is to regulate the flow of pressurized fuel from the fuel tank through the generator to the burner head.

Main Burner Head. The main burner head is located on the right of the stove and consists of a burner cap and a small screw with a series of burner rings. The entire assembly sits in a large burner bowl. The main burner control knob is located on the valve and generator assembly.

Auxiliary Burner Head. The auxiliary burner head is located on the left of the stove and consists of a burner cap and small screw along with a series of small burner rings. The entire assembly sits in a small burner bowl. The auxiliary burner control is located on the left side of the stove box.

Pump Assembly. The pump assembly is fitted into the tank and is held in place by a pump cap clip.

Fuel Tank. The fuel tank is red in colour. This tank is only intended to be filled to three quarters full, allowing air in for pressurization. The tank fits on the front of the stove box when in use, and is stored inside the stove box.

Wind Baffles. The wind baffles shelter the burners from wind.

Stove Grate. The stove grate supports pot sets.

Generator. The generator supplies fuel to the burners. Fuel passing through the generator is heated by the main burner.

Precautions

Hazards are few if precautions are taken. Follow these few simple rules:

- Never leave the stove unattended.
- Do not use a stove as a heating device or in enclosed spaces such as buildings, tents or caves.
- Never remove the fuel tank or loosen the filler cap on the fuel tank while the stove is in operation.
- Always fill and light the stove outside in a well ventilated area, away from open flame, heat and combustibles.
- Use only naphtha fuel.
- Store away from open flame or excessive heat.
- Always ensure wind baffles and lid supports are securely positioned before lighting the stove.
- Before transporting or storing, ensure the stove is cool. Loosen the filler cap to release air pressure and retighten. Turn the control knob off.
- If the stove catches light, turn off the fuel supply, close the wind baffles and drop the stove lid.
- When using the stove ensure a fire extinguisher is available.

It is important to stress to cadets that stoves and lanterns must not be used in enclosed spaces such as buildings and tents. The burning of naphtha and other fuels results in the release of carbon monoxide. Carbon monoxide binds with haemoglobin 200 to 250 times better than oxygen, and disrupts almost all physiologic and neurologic systems, even in fairly low concentrations. Because the gas is heavier than air, it pools in the low ground of tents and caves where outdoor enthusiasts sleep, and will not go away – for days even – unless it's forced out by a strong, persistent direct draft of cold air at the height of the pooled gas. Preventing the problem in the first place requires a similarly active draft – at the stove or lantern or below, not at the top of the tent or cave as was once thought. According to one recent research study, asphyxiation in tenting situations kills three times as many people yearly as mountaineering does. Other research has linked even moderate exposure to carbon monoxide to significant long-term effects, including depressed mood, apathy, disorientation, irritability and amnesia – several of which occur in 100 per cent of individuals exposed and can be measure years after the initial exposure. Risks also increase in higher altitudes.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. What is the lowest operational temperature of the Coleman stove?

Q2. What type of fuel is used in the Coleman stove?

Q3. What are three precautions to take when operating the Coleman stove?

ANTICIPATED ANSWERS

A1. When shielded from the wind, it can be used in temperatures as low as -52 °C.

A2. The Coleman stove uses naphtha.

A3. Three precautions to take when operating the Coleman stove are:

- Do not use the stove as a heater.
- Never remove or loosen the filler cap on the fuel tank while the stove is in operation.
- Never leave the stove unattended.
- Always fill and light the stove outside, away from open flame, heat and combustibles.
- Never remove the fuel tank while the stove is in operation.
- Use only naphtha fuel.
- Store away from open flame or excessive heat.
- Always ensure wind baffles and lid supports are securely positioned before lighting the stove.
- Do not use in dining tents.
- Before transporting or storing, ensure the stove is cool. Loosen the filler cap to release air pressure and retighten. Turn the control knob off.

Teaching Point 2 **Explain, Demonstrate and Have the Cadets Operate a Two-burner Stove**

Time: 15 min Method: Demonstration and Performance

For this skill lesson, it is recommended that instruction take the following format:

1. Explain and demonstrate the complete skill while cadets observe.
2. Explain and demonstrate each step required to complete the skill. Monitor cadets as they imitate each step.
3. Monitor the cadets' performance as they practice the complete skill.

Note: Assistant instructors may be employed to monitor cadet performance.

ASSEMBLY

To assemble the Coleman stove:

1. Unlatch and open the stove (Figure 11-7-2).
2. Open and secure the wind baffles (Figure 11-7-3).
3. Lift the grate and remove the fuel tank (Figure 11-7-4).
4. Install the fuel tank. Ensure the generator passes through the large hole in the front of the stove and is inserted into the opening in the mixing chamber above the burner. Insert hanger brackets on the tank into the slots located on the front of the stove case (Figure 11-7-4).
5. Secure the safety chain (Figure 11-7-5).
6. Close the grate (Figure 11-7-6).

7. Ensure the auxiliary burner valve is in the closed position (Figure 11-7-7).

D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 11-7-2 Closed Stove

D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 11-7-3 Wind Baffles

D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 11-7-4 Installing the Fuel Tank

D Cdts 3, 2007, Ottawa, ON:Department of National Defence

Figure 11-7-5 Securing the Safety Chain

D Cdts 3, 2007, Ottawa, ON:Department of National Defence

Figure 11-7-6 Closed Grate

D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 11-7-7 Auxiliary Burner Control

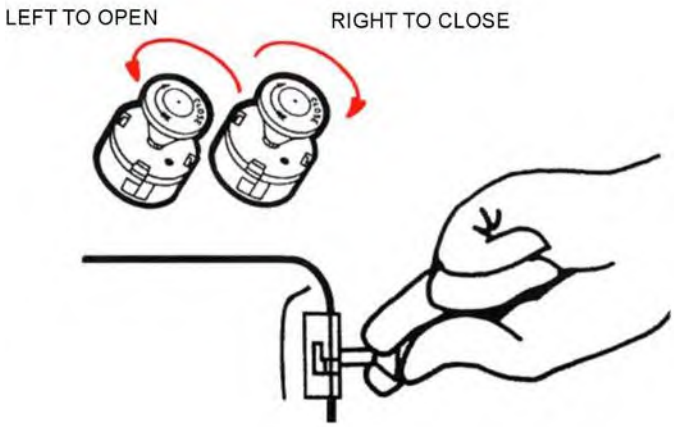
LIGHTING AND EXTINGUISHING THE COLEMAN STOVE

The Coleman stove fuel tank should have been fuelled previous to this lesson, however, the fuel tank will have to be pressurized through pumping.

Pumping the Fuel Tank

1. Make sure the control knob is in the OFF position.

2. Turn the pump rod two full turns counterclock wise.
3. Place the thumb over the air vent of the pump rod handle.
4. Pump thirty to forty full strokes to pressurize the fuel tank.
5. Turn the pump rod clockwise until it is closed tight.



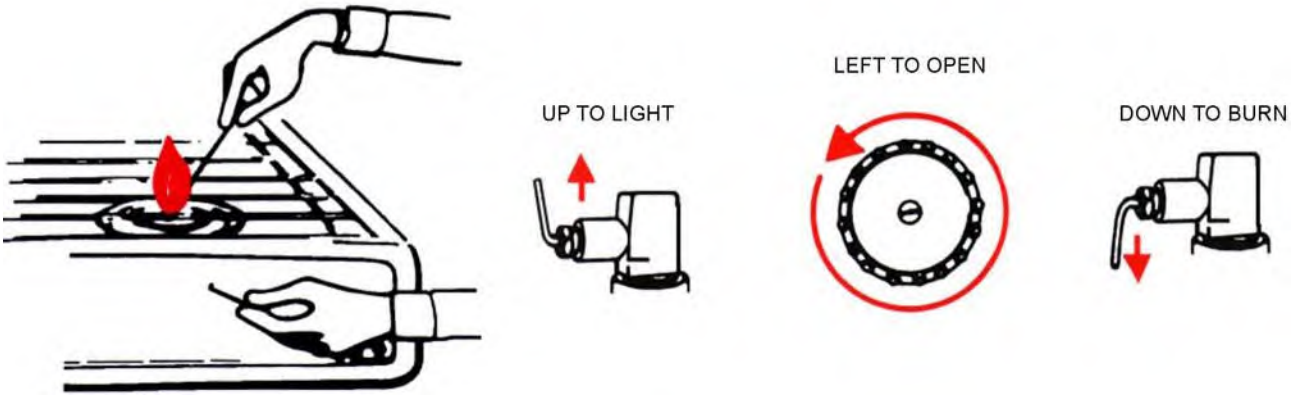
Coleman Camp Stove Model M425F710C Instructions for use, by The Canadian Coleman Co., Mississauga, ON

Figure 11-7-8 Pumping the Fuel Tank

Lighting the Main Burner

During colder conditions, it may be necessary to warm the generator prior to lighting. This can be accomplished by applying a small amount of fuel to the main burner directly and lighting it with a match. The burning fuel will heat the generator, heating the fuel inside and facilitating the lighting of the burner. When the generate is not adequately heated it is possible for liquid fuel to pool in the stove which is very dangerous.

1. Ensure the auxiliary valve is in the closed position and the tank is pumped.
2. Do not lean over the stove while lighting.
3. Hold a lit match near the master burner.
4. Turn the instant light lever up to light.
5. Turn the control knob to the LIGHT position or setting.
6. Monitor the flame.
7. When the flame turns blue in colour (approximately one minute), turn the instant light lever down and turn the control knob to the desired heat setting (HI – LO).



Coleman Camp Stove Model M425F710C Instructions for use, by The Canadian Coleman Co., Mississauga, ON

Figure 11-7-9 Lighting the Main Burner

Should the stove fail to light or the match goes out before ignition, turn the control knob to the OFF position and wait two minutes before attempting to light the stove again.

Lighting the Auxiliary Burner

1. After the main burner has been lit, the auxiliary burner may be lit.
2. Hold a match to the auxiliary burner. Open the auxiliary valve located on the side of the stove box, next to the burner (the main burner may require adjustment after lighting the auxiliary burner).

Extinguishing the Burner

1. Close the auxiliary burner valve.
2. Remove cookware from the stove and turn the instant light lever up to LIGHT position and let burn for one minute. This cleans heavier parts of fuel from the generator.
3. Turn the control knob clockwise to the OFF position and close firmly.

A small flame on the main burner will continue to burn for a few minutes, until the fuel empties from the generator.

STORING THE COLEMAN STOVE AFTER USE

To store the Coleman stove:

1. Allow the stove to cool before packing.
2. Ensure the stove is clean and any dirt, matches, etc. are emptied from the stove box.
3. Ensure the auxiliary burner valve is in the closed position.
4. Open the grate.
5. Remove the safety chain.

6. Uninstall the fuel tank and remove it from the generator.
7. Place the fuel tank inside the stove box.
8. Close the grate.
9. Close and fold in the wind baffles.
10. Close the cover and latch the box.
11. Store the stove in a cool, dry location.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. How is the Coleman stove assembled?

Q2. How many pumps pressurize a fuel tank?

Q3. What is the first step in extinguishing the Coleman stove?

ANTICIPATED ANSWERS

A1. To assemble the Coleman stove complete the following steps:

1. Unlatch and open the stove.
2. Open and secure the wind baffles.
3. Lift the grate and remove fuel tank.
4. Install the fuel tank. Ensure that the generator passes through the large hole in the front of the stove and is inserted into the opening in the mixing chamber above the burner. Insert hanger brackets on the tank into the slots located on the front of the stove case.
5. Secure the safety chain.
6. Close the grate.
7. Ensure auxiliary burner valve is in the closed position.

A2. Pump thirty to forty full strokes to pressurize a fuel tank.

A3. The first step in extinguishing the Coleman stove is close the auxiliary burner valve.

Teaching Point 3 **Identify the Characteristics of the Dual-mantle Lantern**

Time: 5 min Method: Interactive Lecture

CHARACTERISTICS

Coleman lanterns are designed to burn naphtha—a very flammable liquid fuel. This fuel is pressurized in a tank attached to the unit, heated in a generator and then burned as a gas. For best results, keep lanterns clean and in good working condition.

The characteristics of the dual-mantle Coleman lantern include:

- a weight of 2.25 kg (5 lbs); and

- a 1 L fuel tank capacity which allows 7 hours of burn time on HIGH and 14 hours on LOW.

Parts and Accessories

D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 11-7-10 Coleman Dual-mantle Lantern

Ventilator. Allows for heat and exhaust to evacuate the lantern.

Generator. Provides pressurized fuel to the mantle.

Mantle. Emits a bright light by the burning naphtha fuel.

Handle. Allows the user to carry or hang the lantern.

Pyrex Globe. Protects the mantle from foreign debris. The globe also reduces the amount of oxygen entering the lantern.

Filter Cap. Seals the fuel tank.

Control Knob. Controls the amount of fuel entering the generator, controlling the brightness of the lantern.

Tank. Is a fuel storage reservoir.

Pump. Pumps air into the fuel tank, pressurizing the tank.

Precautions

Hazards are few when precautions are taken. In addition to the precautions taken with stoves caution must be taken to ensure that lantern mantles with holes in them are replaced prior to use.

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

Q1. What is the fuel capacity of the dual-mantle tank?

Q2. Where should the lantern be used?

Q3. What is the purpose of the handle?

ANTICIPATED ANSWERS

A1. The dual-mantle lantern fuel tank holds 1 L.

A2. The lantern should be used in ventilated or open areas.

A3. The handle allows the user to carry or hang the lantern.

Teaching Point 4 — **Explain, Demonstrate and Have the Cadets Practice Operating the Dual-mantle Lantern**

Time: 10 min — Method: Demonstration and Performance

For this skill lesson, it is recommended that instruction take the following format:

1. Explain and demonstrate the complete skill while cadets observe.
2. Explain and demonstrate each step required to complete the skill. Monitor cadets as they emulate each step.
3. Monitor the cadets' performance as they practice the complete skill.

Note: Assistant instructors may be employed to monitor cadet performance.

ASSEMBLY

The lantern does not require assembly or disassembly except replacing the mantles. Before operating the lantern, the cadet should verify that the handle is in place and that the screw on top of the ventilator is tight.

LIGHTING AND EXTINGUISHING THE COLEMAN DUAL-MANTLE LANTERN

The lantern should have been fuelled previous to this lesson; however, the lantern will have to be pressurized through pumping. When a mantle is replaced it should be burned prior to use. By burning the mantle, the mantle shrinks down in size ensuring that combustion of the fuel takes place at the mantle. When the mantle is not burned prior to use fuel can leak out of the mantle prior to combustion.

Pumping the Fuel Tank

1. Make sure the control knob is in the OFF position.
2. Turn the pump rod two full turns counterclockwise.
3. Place the thumb over the air vent of the pump rod handle.
4. Pump thirty to forty full strokes to pressurize the fuel tank.
5. Turn the pump rod to clockwise until it is closed tight.

Lighting the Lantern

Do not position the hands or head above the lantern when lighting. Mantles are very fragile and shall be avoided when using a match to light the lantern.

1. Insert a lit match through the hole in the bottom of the burner frame.
2. Turn the control knob to the LIGHT position.
3. When the mantle burns bright white, turn the control knob to the ON position.
4. Add more air pressure to the tank. Air pressure may be added while the lantern is in operation. Good air pressure is important for maximum light output.

Extinguishing the Lantern

1. Turn the control knob to the OFF position.
2. Allow the remaining fuel to burn off.

STORING THE LANTERN AFTER USE

To store the Coleman lantern:

1. Ensure the lantern is cool.
2. Wipe and clean away any dirt.
3. Drain the fuel into a fuel storage container.
4. Place in a cool, dry location.

CONFIRMATION OF TEACHING POINT 4

QUESTIONS

Q1. How many pumps pressurize a lantern fuel tank?

Q2. Where is the match inserted to light the lantern?

Q3. How is a lantern extinguished?

ANTICIPATED ANSWERS

A1. Pump thirty to forty full strokes to pressurize a lantern fuel tank.

A2. Insert a lit match through the hole in the bottom of the burner frame.

A3. To extinguish, turn the control knob to the OFF position and allow the lantern to burn off the remaining fuel.

Teaching Point 5 **Explain, Demonstrate and Have the Cadets Practice Safely Handling of Field Tools**

Time: 15 min Method: Demonstration and Performance

For this skill lesson, it is recommended that instruction take the following format:

1. Explain and demonstrate the complete skill while cadets observe.
2. Explain and demonstrate each step required to complete the skill. Monitor cadets as they imitate each step.
3. Monitor the cadets' performance as they practice the complete skill.

Note: Assistant instructors may be employed to monitor cadet performance.

When using tools, everyone should:

- Store tools in a secure place. Never leave them lying around or touching the ground.
- Always use the right tool for the job.
- Follow the safety procedures for using the equipment.
- Keep the edges and blades sharp and handles tight.
- Clean and lightly oil steel parts before storage.

AXE

Before using an axe, the tightness of the handle should be checked. If it is loose, the wedge needs to be driven further down or a new wedge should be made using hardwood. The handle must not be cracked or split.

Determining Sharpness

The axe blade should be sharp. If it is not, it can be dangerous, as it will not bite/cut properly and will tend to glance/skip off the wood being cut. Greater force will be required to use it, sacrificing control. A file is best for removing burrs (chips) on the axe blade, and a whetstone for sharpening the edge.

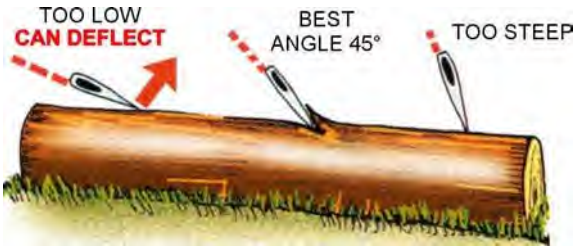
Holding

The axe should be carried by holding it by the handle just below the head, the cutting edge in front and pointing slightly away from the person.

Before storing, the axe should be carefully cleaned and put back in its sheath. When outdoors, the axe can also be driven into the dry stump of a dead tree when not in use.

Chopping Angle

To maximize chopping, cuts should be made at angles of 45 degrees. At angles less than 45 degrees, the axe can deflect off the tree. This can be very dangerous. At angles greater than 45 degrees, the axe will be ineffective as the blade will not chip away pieces of wood but just insert itself into the tree.



Tawrell, P., Camping and Wilderness Survival, Leonard Paul Tawrell (p. 409)

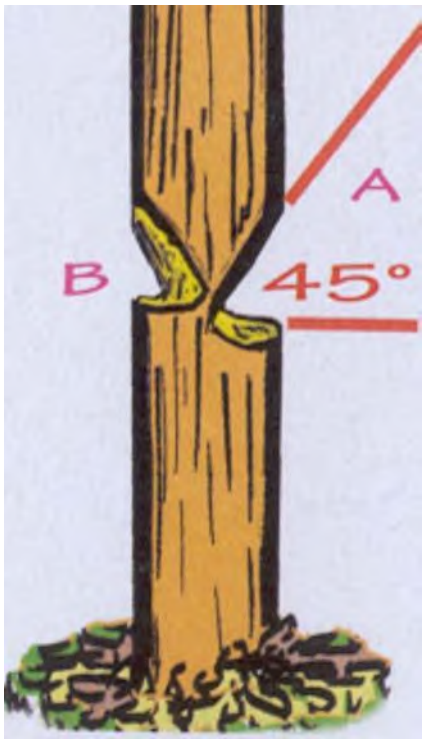
Figure 11-7-11 Chopping Angle

Direction of Fall

When using an axe to cut a tree:

1. Plan an escape route in case the tree falls toward you. Beware of hornets or wasp's nests.
2. Check that the axe is sharp and the head is secure on the handle.
3. Set up a safe distance from other people.
4. Remove any branches and nearby shrubs that can deflect the axe.
5. Secure footing.
6. Swing with short, smooth strokes. This will keep one on target.
7. Cuts are most efficient at 45 degree angles and easily eject wood chips.
8. Check the direction of lean.
9. Carefully cut until the tree is ready to fall. When the tree falls and other people are present, yell TIMBER!

The first cut should be made on the side of the tree facing the direction of the desired fall. This is often decided by the lean of the tree. The cut should not be more than halfway through the tree. The back cut commences slightly above and opposite the first cut. Both cuts should be at 45 degree angles.



Tawrell, P., Camping and Wilderness Survival, Leonard Paul Tawrell (p. 496)

Figure 11-7-12 Direction of Fall

BOW SAW

Holding and Cutting a Log

When using a bow saw to cut wood:

1. Use steady strokes without excessive weight on the blade.
2. Ensure the wood is secured by using a log support. This will help prevent the saw from getting pinched by the log, allowing the weight of the cut end to open the cut (Figure 11-7-12).

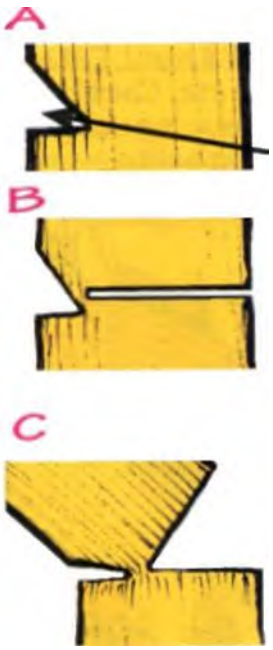
Tawrell, P., Camping and Wilderness Survival, Leonard Paul Tawrell (p. 500)

Figure 11-7-13 Cutting a Log

Direction of Fall

When using a bow saw to cut a tree:

1. Chop a notch with an axe in the direction the tree is to fall. This is called a bridge.
2. Saw on the opposite side of the tree from the notch, one or two inches above the lower surface of the notch (see Figure 11-7-14). This is very important because if sawn below the notch, the tree can kick back, pinch the blade and may go out of control.
3. Withdraw the saw when the tree starts to fall. The tree will fall with the help of the bridge.



Tawrell, P., Camping and Wilderness Survival, Leonard Paul Tawrell (p. 500)

Figure 11-7-14 Cutting a Tree With a Saw

ACTIVITY

Time: 10 min

OBJECTIVE

The objective of this activity is to practice chopping and sawing a log.

RESOURCES

- Logs for cadets to chop and saw;
- 1 axe per group; and
- 1 bow saw per group.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Divide cadets into groups of no more than five.
2. Cadets will cut and saw a log of wood using an axe and a bow saw.
3. Every cadet will be given an opportunity to cut and saw.

SAFETY

Cadets will be directly supervised by an instructor employing safe tool handling at all times.

CONFIRMATION OF TEACHING POINT 5

QUESTIONS

Q1. What should be checked on an axe before using it?

Q2. What angle will maximize the chop of an axe?

Q3. What type of strokes should be used when sawing?

ANTICIPATED ANSWERS

A1. Before using an axe, the tightness of the handle should be checked. The handle must not be cracked or split and the axe blade should be sharp.

A2. A 45 degree angle will maximize the chop of an axe.

A3. Use steady strokes without excessive weight on the blade.

END OF LESSON CONFIRMATION

QUESTIONS

Q1. What should be oiled on an axe after use?

Q2. What is the lowest operational temperature of the Coleman Stove?

Q3. Why do cadets not use Coleman Stoves or Lanterns in an enclosed space?

ANTICIPATED ANSWERS

A1. The steel head on an axe should be oiled after use.

A2. When shielded from the wind, the lowest operational temperature of a Coleman stove is -52° C.

A3. Stoves and Lanterns produce carbon monoxide which binds with haemoglobin resulting in effects such as depressed mood, apathy, disorientation, irritability, amnesia and even death.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

During a weekend bivouac FTX, everyone will use tools to construct portions of the bivouac site. It is key to know how to use the tools and equipment provided, as it will help ensure everyone's safety and will help keep the tools in good condition.

INSTRUCTOR NOTES/REMARKS

Fire extinguishers shall be located within 15 m of operating stoves and lanterns.

REFERENCES

A2-010 B-GG-302-002/FP-001 FMC (1982). *Basic Cold Weather Training: Arctic and Sub-arctic Operations (Vol. 2)*. Ottawa, ON: Department of National Defence.

C0-111 (ISBN 978-0-9740820-2-8) Tawrell, P. (2006). *Camping and Wilderness Survival: The Ultimate Outdoors Book* (2nd ed.). Lebanon, NH: Leonard Paul Tawrell.

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ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 8

EO M221.08 – PREPARE AN INDIVIDUAL MEAL PACKAGE (IMP)

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Immediately prior to this lesson bring water to a boil and have it waiting at a simmer. This water will be used to heat the IMP. Also, have some potable water boiled and ready for any additional food items in the IMP that require hot water.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TP1 and TP2 to introduce the cadets to meal preparation in the field and to generate interest.

Demonstration and performance was chosen for TP3 as it allows the instructor to explain and demonstrate how to prepare an IMP while providing an opportunity for the cadets to practice under supervision.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to prepare an IMP.

IMPORTANCE

It is important for cadets to know how to prepare the different components of an IMP. The IMP will provide energy to fuel the body enabling a cadet to continue tasks and activities in the field. The IMP is most often consumed during expeditions in the absence of kitchen facilities.

Teaching Point 1 **Discuss Field Meals**

Time: 5 min Method: Interactive Lecture

Cadets may have some knowledge of the different types of rations available from Green Star or the General Training Course.

Provide the cadets with as many visual examples as possible. This lesson is conducted in the field, so fresh and IMP meals should be available. If hay boxes are available be sure to use them as an example.

TYPES OF FIELD MEALS

Eating regularly in the field is a very important aspect of maintaining strength and energy. Even though a cadet may be preoccupied, it is important to eat as much healthy food as possible when engaged in physical outdoor activities. Cold weather, strenuous exercise and constant activity require a lot of energy. Only a good, healthy meal can replace energy.

Fresh Rations

Fresh rations are raw food prepared in the field. Fresh rations require preparation and cooking. This type of ration usually does not store/keep well and must be cooked within a day of entering the field (e.g. hot dogs, hamburgers, steak, eggs, etc.).

Hay Boxes

Hay boxes contain fresh rations that have been prepared by a kitchen facility. The food is stored in insulated containers (hay boxes) that continue to keep this food warm without fuel (the warm metal inserts are kept warm because of the food stored within). A hay box is very similar to a thermos – keeping cold food cold or hot food hot.

Box Lunches

These meals are made as a replacement for meals that would normally be consumed at a kitchen. They may be used for planned trips where, either as a result of the timings or the route used, kitchen facilities are not accessible for meals. Box lunches usually contain sandwiches, fruit, veggies, juice, etc.

IMPs

Each IMP includes a main course (meat or vegetarian), vegetables and fruit in sealed foil pouches, and dried foods in paper/tinfoil pouches. All of the food items are safe to eat cold and dry—they may not taste as good as hot food, though. High sugar items like chocolate, hard candies, drink mixes, as well as coffee and tea are also included.

IMPs were developed to meet a typical day's three meal requirement. These meals are identified as breakfast, lunch and supper. They contain between 1400 and 1800 calories—enough calories for an adult performing strenuous tasks for prolonged periods. If inactive or working at lower levels of effort, eating IMPs could cause a person to gain weight.

WATER REQUIREMENTS

Bringing Water to the Field. When warming/heating IMPs, potable water is not required. Pond, lake or spring water that has not been filtered or treated will suffice.

Water Used for Cooking IMPs Is Not Potable. The water used for cooking IMPs may become contaminated with aluminium oxide from the outside of the IMP pouches. This makes the water unsafe to drink and should be treated as grey (washing) water and disposed of appropriately.

Boiling or Treating Water From Unknown Sources. When drawing water from any source that may not be safe, it must be boiled rapidly for 5 minutes before it is consumed.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. What are the four types of rations available?

Q2. IMPs are identified by what type of meals?

Q3. Can water from boiled IMPs be consumed?

ANTICIPATED ANSWERS

A1. Fresh, box lunches, hay boxes and IMPs.

A2. Breakfast, lunch and supper.

A3. No. The water becomes contaminated with aluminium oxide from the outside of the IMP pouches.

Teaching Point 2 **Discuss the Characteristics and Contents of an IMP**

Time: 5 min Method: Interactive Lecture

During this TP, if available, have two IMPs. One breakfast meal and either a lunch or supper meal is best.

Describe the physical look of the IMP and discuss each item contained within. Give examples of how to use each item.

Show the difference in items between the breakfast and the other meals, note the cereal and hot chocolate items.

CHARACTERISTICS OF AN IMP

The IMP is a small-packaged meal that:

- is no bigger than a large dictionary;
- weighs 850 grams (14 ounces, one pound is equal to 16 ounces);
- contains approximately 1400 to 1800 calories;
- is available in three different meal types—breakfast, lunch and supper. Each type of meal has six different courses; and
- contains some similar contents.

CONTENTS OF AN IMP

	BREAKFAST	LUNCH	SUPPER
COMMON		1. Main meal pouch 2. Dessert pouch 3. Matches 4. Paper towel 5. Spoon 6. Beverage crystals	
MEAL-SPECIFIC	1. Coffee and hot chocolate with condiments 2. Cereal	1. Coffee and tea with condiments 2. Chocolate bar 3. Bread/crackers and jam	1. Coffee and tea with condiments 2. Chocolate bar or cookies 3. Soup 4. Side dish
Note: contents change yearly. This list is intended to identify the key items in an IMP.			

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. How heavy is an IMP?

Q2. What is the approximate size of an IMP?

Q3. Name five items that are common to each IMP.

ANTICIPATED ANSWERS

A1. About 850 grams or 14 ounces.

A2. No bigger than a large dictionary.

A3. Main meal pouch, dessert pouch, spoon, paper towel, and matches.

Teaching Point 3 — **Explain, Demonstrate, and Allow Time for the Cadets, as a Group, to Prepare and Cook IMPs**

Time: 15 min — Method: Demonstration and Performance

Issue each cadet an IMP for their next meal. Demonstrate preparing an IMP for cooking and have cadets follow along.

Explain how to use each item in the IMP.

COOKING IMPS

Although IMPs can be consumed cold, they should be heated when possible. Cooking IMPs is simply a matter of:

1. placing the foil pouch, with the entrée sealed inside, in boiling water;
2. heating for 5 minutes and then removing the pouch from the boiling water;
3. placing the pouch back into the cardboard package from which it came (tear a strip off the top of the package to allow easier access to the food); and
4. tearing open the foil pouch and enjoying.

IMPs require only a small amount of water to heat. The heat produced from boiling water and steam is very effective when heating the foil package.

Other food articles will have specific instructions, such as adding water, for their preparation.

Each IMP contains paper, cardboard and foil garbage. One way of reducing the amount of excess garbage that will have to be carried is to “break down” the rations before packing. This entails selecting only the food items that will be consumed and leaving behind the extra packaging. Always carry extra food as a person is often hungrier when performing physical activity than when packing.

ACTIVITY

Time: 10 min

OBJECTIVE

The objective of this activity is to have cadets prepare an IMP for a meal.

RESOURCES

- IMP (one per cadet);
- 2 Pots (large enough to hold IMPs and to boil potable water);
- Fuelled two-burner naphtha stove;
- Pot set;
- Potable water; and
- Matches.

ACTIVITY LAYOUT

Designated cooking area in a field setting.

ACTIVITY INSTRUCTIONS

1. Provide each cadet with an IMP meal appropriate for the time of day.
2. Have cadets follow along, preparing their IMPs for consumption.
3. Explain and demonstrate how to use, heat and consume all items in the IMP.

4. Cadets will consume the IMP they prepared following the tips they have learned.

SAFETY

Ensure caution when operating stoves and handling the IMPs once they are removed from the hot water. Caution, the boiling water produces a very hot steam that can scald the skin, causing a serious burn.

CONFIRMATION OF TEACHING POINT 3

The cadets' participation in the activity in TP3 will serve as a confirmation of this lesson.

END OF LESSON CONFIRMATION

The cadets' participation in the activity in TP3 will serve as a confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

An IMP provides nutrients and energy for the active Army Cadet, especially during vigorous expedition training. Learning to prepare IMPs contents is a skill that will be needed while taking part in expedition training.

INSTRUCTOR NOTES/REMARKS

This lesson is best instructed prior to a meal hour.

REFERENCES

A2-042 A-85-269-001/FP-003 Canadian Forces. (1986). *Food Service Manual: Field Feeding* (Vol. 1). Ottawa, ON: Department of National Defence.

ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 9

EO M221.09 – MAINTAIN SECTION EQUIPMENT FOLLOWING A FIELD TRAINING EXERCISE (FTX)

Total Time: 60 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

This lesson is intended to be conducted following a weekend bivouac FTX. The equipment used on the FTX will be used as training aids, to include:

- a Coleman two-burner stove,
- a dual-mantle lantern,
- a pot set,
- a axe,
- a bow saw,
- a groundsheet,
- a bucket/wash basin, and
- rags.

Divide the cadets into groups of no more than four. Provide each group with basin of water and a rag or cloth. During each TP each group should be given a piece of the equipment being discussed. Have cadets follow along with the instruction, maintaining the equipment as it is covered.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

Demonstration and performance was chosen for this lesson as it allows the instructor to explain and demonstrate the cleaning and storing of section equipment while providing an opportunity for the cadets to practice these skills.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to maintain section equipment.

IMPORTANCE

It is important for cadets to learn how to maintain section equipment. Cleaning and storing equipment prolongs the life of the equipment. Through regimented cleaning practices, equipment will be slow to corrode and rust ensuring a long life.

Teaching Point 1 — **Explain, Demonstrate and Have the Cadets Practice Cleaning and Storing a Two-burner Stove**

Time: 10 min — Method: Demonstration and Performance

Provide each group with a Coleman two-burner stove. Have cadets follow along with the instruction, cleaning equipment as it is covered.

CLEANING SOLUTION

Cleaning the Coleman two-burner stove requires only a light mixture of dish soap and water and an old rag or cloth. To mix the solution, apply a few drops of dish soap in a wash bucket filled with warm water.

CLEANING

After use, the Coleman two-burner stove may be left with deposits of soot (fuel exhaust) and the remnants of food. Cleaning after use will prolong the life of the stove and delay corrosion of the metal surfaces. Parts of the Coleman two-burner stove shall be wiped clean using the cleaning solution and a rag/cloth.

The Inner and Outer Wind Baffles. The inner baffles usually become dirty and are often dirtier than the outer baffles as a result of the burning of fuel and food splashing over the pots and pans. Thoroughly wipe clean both sides of the baffles.

D Cdts 3, 2007, Ottawa, ON: Department of National Defence

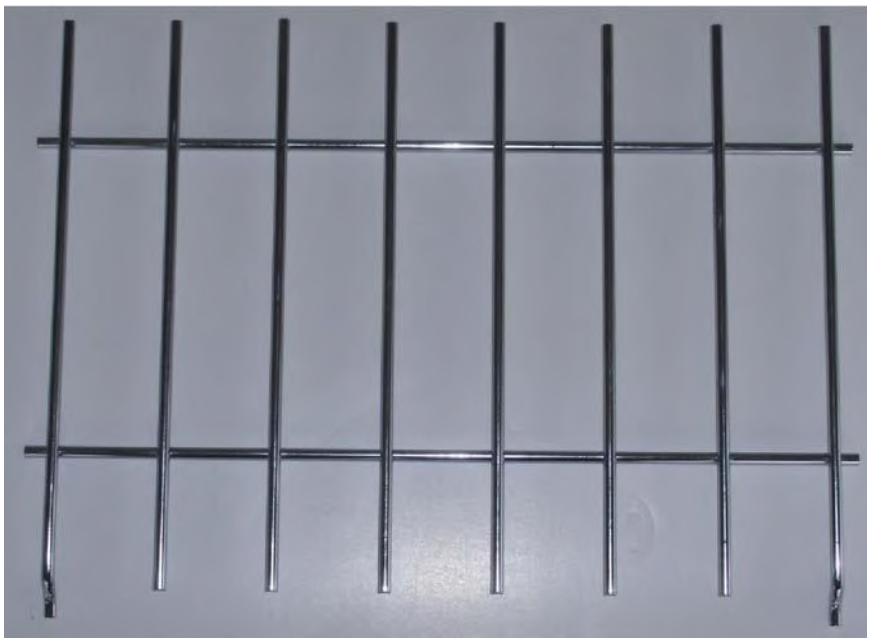
Figure 11-9-1 Wind Baffles

The Fuel Tank. The fuel tank shall be wiped clean. The fuel tank contains many ledges and crevices that require careful cleaning.

D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 11-9-2 Fuel Tank

The Grate. The grate becomes dirty through direct contact with cooking utensils. Food is continuously spilled and burned onto the grate. Clean the grate of any food remnants. The grate may be stained by the heat of the flames and cannot be cleaned.



D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 11-9-3 Grate

The Stove Box. The stove box protects the burner from dirt and debris; however, when in use, the box will collect dirt and debris. The inside of the box is subject to the spillage of food, dirt and dust. The inside and outside of the stove box shall be cleaned thoroughly because the settling of debris and dirt will speed corrosion.

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Figure 11-9-4 Stove Box

INSPECTING FOR DAMAGE

After the stove has been cleaned, it must be inspected for damage. Check the following parts and report any damages:

- stove box;

- control valve assembly;
- main burner head;
- auxiliary burner head;
- pump assembly;
- wind baffles;
- stove grate; and
- fuel tank.

Damages should be recorded on a piece of coloured paper, preferably red, and attached to the damaged part. If the equipment is not suitable for use, remove it from usable equipment and report to the designated quartermaster to have the item replaced or repaired.

ENSURING THE FUEL TANK IS EMPTY PRIOR TO STORAGE

Ensure the tank is stored with no remaining pressure. To release the pressure loosen the filler cap until pressure is gone, then retighten the cap.

The fuel tank must be emptied prior to storage. Any remaining fuel should be drained into a fuel container. To drain the fuel tank, use a funnel and pour the remaining contents of the fuel tank into a fuel container. Then allow the remaining fuel to evaporate by placing the open fuel tank outside in a well ventilated area.

Drain the fuel tank outside and use a spill pan in case spillage occurs.

STORING

Store the Coleman stove in a cool, dry location away from moisture.

CONFIRMATION OF TEACHING POINT 1

The cadet's participation in cleaning the Coleman two-burner stove will serve as the confirmation of this TP. Questions have been provided if additional confirmation is required.

QUESTIONS

Q1. What should be used as a cleaning solution?

Q2. What areas of the wind baffles usually become dirty?

Q3. How should damages be recorded?

ANTICIPATED ANSWERS

A1. A mild solution of dish soap and water.

A2. The inner baffles usually become dirty as a result of the burning of fuel and food splashing over from the pots and pans.

A3. Damages should be recorded on a piece of coloured paper, preferably red, and attached to the damaged part.

Teaching Point 2 **Explain, Demonstrate and Have the Cadets Practice Cleaning and Storing a Dual-mantle Lantern**

Time: 10 min Method: Demonstration and Performance

Provide each group with a dual-mantle lantern. Have the cadets follow along with the instruction, cleaning equipment as it is covered.

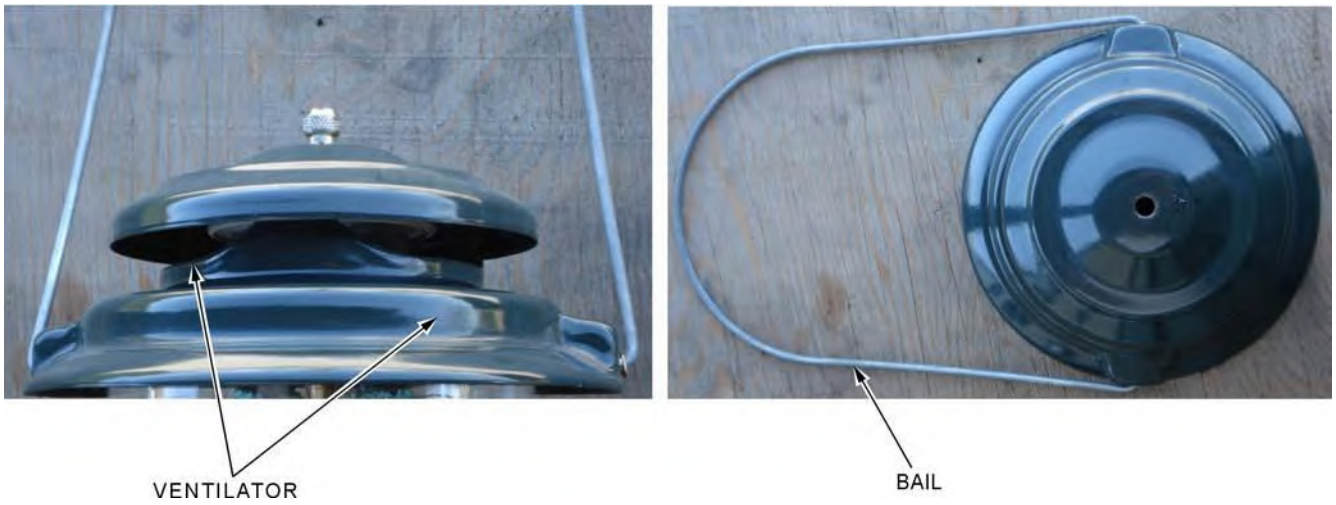
CLEANING SOLUTION

Cleaning the Coleman dual-mantle lantern requires only a light mixture of dish soap and water and an old rag/cloth. To mix the solution, apply a few drops of dish soap in a wash bucket filled with water.

CLEANING

After use, the Coleman dual-mantle lantern is left with deposits of soot (fuel exhaust) and possibly dirt or mud from being placed on the ground. Cleaning after use will prolong the life of the lantern and delay corrosion of the metal surfaces. Some parts of the Coleman dual-mantle lantern shall be wiped clean using the cleaning solution and a rag/cloth.

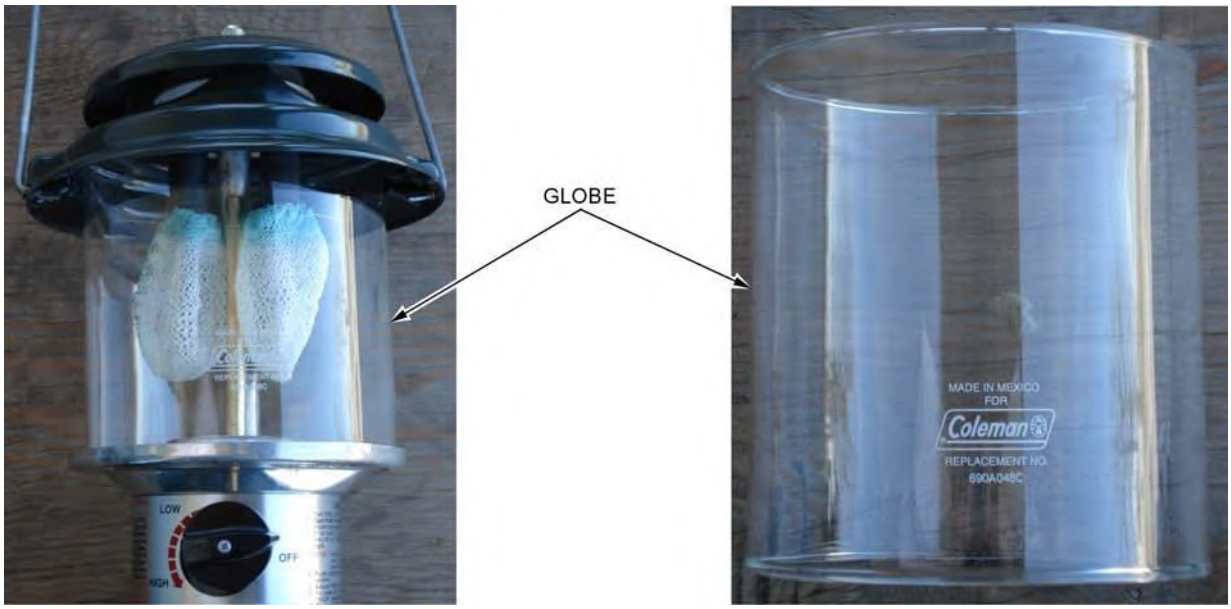
The Ventilator and Bail Assembly. The ventilator allows heat and exhaust to escape from the lantern. The exhaust builds up a residue on the ventilator, bail (handle) assembly and its metal parts. This residue over time becomes very greasy and dirty in appearance. Remove the ventilator and bail assembly by unscrewing the ventilator screw or uncoupling the handle and lifting clear the ventilator and bail assembly. Wipe clean the complete ventilator and bail assembly using the cleaning solution and a rag/cloth.



D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 11-9-5 Ventilator and Bail Assembly

The Globe. The globe, which protects the mantles, is made of glass. This glass becomes dirty during use. It also becomes dirty from bugs, dirt and dust that constantly come in contact with the glass. The glass becomes smudged reducing the amount of light that is emitted from the lantern. Remove the globe from the lantern, carefully lifting it over the mantles. Clean the globe using the cleaning solution and a rag/cloth.



D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 11-9-6 Globe

The Fuel Tank. The fuel tank is the reservoir that stores fuel, otherwise known as the font. The fuel tank is used to rest the lantern on flat surfaces, whether it be the ground or a table. This area collects little residue from the exhaust of the lantern; however, it is exposed to moisture and dirt. Cleaning the outside of fuel tank with the cleaning solution is important to slow the corrosion of the metal.

D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 11-9-7 Fuel Tank

INSPECTING FOR DAMAGE

After the lantern has been cleaned, it must be inspected for damage. Check the following parts and report any damages:

- ventilator;
- mantle;
- bail;
- globe;
- filler cap;
- control knob;
- fuel tank; and
- pump.

Damages should be recorded on a piece of coloured paper, preferably red, and attached to the damaged part. If the equipment is not suitable for use, remove from usable equipment and report to the designated quartermaster to have the item replaced or repaired.

ENSURING THE FUEL TANK IS EMPTY PRIOR TO STORAGE

Ensure the fuel tank is stored with no remaining pressure. To release the pressure, loosen the filler cap until the pressure is gone, then retighten the cap.

The fuel tank must be emptied prior to storage. Any remaining fuel should be drained into a fuel container. To drain the fuel tank, use a funnel and pour the remaining contents of the fuel tank into a fuel container.

Drain the fuel tank outside and use a spill pan in case spillage occurs.

STORING

Store the Coleman lantern in a cool, dry location away from moisture.

CONFIRMATION OF TEACHING POINT 2

The cadets' participation in cleaning the lantern will serve as the confirmation of this TP. Questions have been provided if additional confirmation is required.

QUESTIONS

Q1. How does the globe become dirty?

Q2. What causes the ventilator to become dirty?

Q3. What parts should be checked for damage?

ANTICIPATED ANSWERS

A1. The globe becomes dirty from bugs, dirt and dust that constantly come in contact with the glass.

A2. The ventilator becomes dirty from the exhaust. The exhaust builds up a residue on the ventilator, bail (handle) assembly and its metal parts. This residue over time becomes very greasy and dirty in appearance.

A3. The following parts should be checked for damage:

- ventilator;
- mantle;
- bail;
- globe;
- filler cap;
- control knob;
- fuel tank; and
- pump.

Teaching Point 3 — **Explain, Demonstrate and Have the Cadets Practice Cleaning and Storing a Pot Set**

Time: 10 min — Method: Demonstration and Performance

Provide each group with a pot set. Have cadets follow along with the instruction, cleaning equipment as it is covered.

CLEANING SOLUTION

Cleaning a pot requires only a light mixture of dish soap and water and an old rag/cloth. To mix the solution, apply a few drops of dish soap in a wash bucket filled with water.

CLEANING

After use, the pot set may be left with deposits of food, soot from burning flames and possibly dirt or mud from being placed on the ground. Cleaning the inner and outer walls after use will prolong the life of the pot set and keep it sanitary.

DRYING

Once all parts have been washed it is important to dry the set. To dry the set, air dry or use a dry cloth to absorb the remaining moisture. Storing a wet pot set can be dangerous and unsanitary. A pot set that is stored wet may eventually become mouldy. This may result in someone becoming sick.

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Figure 11-9-8 Pot Set

INSPECTING FOR DAMAGE

After the pot set has been cleaned and dried it must be inspected for damage. Check the following parts and report any damages:

- pot walls;
- handle;
- handle hinge;
- cover; and
- additional smaller pots, if included.

Damages should be recorded on a piece of coloured paper, preferably red, and attached to the damaged part. If the unit is not suitable for use, remove from usable equipment and report to the designated quartermaster to have the item replaced or repaired.

STORING

Store the pot set in a cool dry, location away from moisture.

CONFIRMATION OF TEACHING POINT 3

The cadets' participation in cleaning the pot set will serve as the confirmation of this TP. Questions have been provided if additional confirmation is required.

QUESTIONS

Q1. What parts of the pot must be cleaned?

Q2. Why should a pot set be dried?

Q3. What parts of a pot set must be checked for damage?

ANTICIPATED ANSWERS

A1. The inner and outer walls and the cover must be cleaned.

A2. A pot set that is not dried and is stored wet may become mouldy and unsanitary to use for cooking.

A3. The following parts should be checked for damage:

- pot walls;
- handle;
- handle hinge;
- cover; and
- additional smaller pots, if included.

Teaching Point 4 — **Explain, Demonstrate and Have the Cadets Practice Cleaning and Storing the Following Field Tools**

Time: 10 min — Method: Demonstration and Performance

Provide each group with field tools. Have cadets follow along with the instruction, cleaning equipment as it is covered.

AXE

Washing and Drying

Cleaning an axe with a cleaning solution is only required when the axe is noticeably covered in dirt or clay. If the axe must be washed, ensure to thoroughly dry the surfaces as left over moisture may rust the axe head and degrade the wooden handle.

Applying Storage Oil

To avoid rusting, rub a few drops of oil on the axe head. It will reduce the chances of corrosion to the axe blade. Oil type is not important.

The axe handle should be rubbed with linseed oil. Linseed oil helps wood retain its natural moisture content which retards cracking, chipping, and shrinking. Linseed oil also repels water.

To keep the handle well oiled drill a one quarter inch diameter hole three inches into the butt of the handle. Fill with linseed oil and plug the hole with a wood stopper.

Inspecting for Damage

After the axe has been cleaned and oiled it must be inspected for damage.

Handle. The handle should be inspected for chipping, cracks or splits that may weaken the wood of the handle. Look around the area where the head of the axe and the handle meet. It is common to find splits and cracks here.

Axe Head. The axe head should be checked to ensure it is tight and does not wobble or move. Check the blade for any dents or chips and feel the sharpness of the blade by gently rubbing the thumb across the blade.

Damages should be recorded on a piece of coloured paper, preferably red, and attached to the damaged part. If the unit is not suitable for use, remove from usable equipment and report to the designated quartermaster to have the item replaced or repaired.

Storing

Store the axe in a cool, dry location away from moisture.

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Figure 11-9-9 Single-bit Axe

BOW SAW

Washing and Drying

Cleaning a saw with a cleaning solution is only required when the saw is noticeably covered in dirt or clay. If the saw must be washed, ensure to thoroughly dry the surfaces as left over moisture may rust the saw handle and blade.

Applying Storage Oil

To avoid rusting, put a few drops of oil on the blade. It will reduce the chances of corrosion to the saw blade. Oil type is not important. If there is a buildup of tree sap on the blade use kerosene to remove the deposits.

Inspecting for Damage

After the saw has been cleaned and oiled it must be inspected for damage.

Blade. Inspect the blade for dull or missing teeth and if it has lost shape. If any of these damages exist, the blade must be replaced.

Handles or "Cheeks". Inspect the handles to ensure they are still in good repair. Ensure the metal has not become fatigued (weak in areas) or no major dents are apparent that may weaken the saw.

Frame. Much like the handles, inspect the frame for any metal fatigue or dents that may weaken the saw.

Damages should be recorded on a piece of coloured paper, preferably red, and attached to the damaged part. If the equipment is not suitable for use, remove from usable equipment and have the item replaced or repaired.

Storing

Store the bow saw in a cool, dry location away from moisture.

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Figure 11-9-10 Bow Saw

CONFIRMATION OF TEACHING POINT 4

The cadets' participation in cleaning field tools will serve as the confirmation of this TP. Questions have been provided if additional confirmation is required.

QUESTIONS

Q1. What should be used to remove a buildup of tree sap on the blade?

Q2. When inspecting for damage to the blade, what should a person look for?

Q3. What should be placed on the blade to prevent rusting or corrosion?

ANTICIPATED ANSWERS

A1. Kerosene is to be used when removing tree sap from the blade.

A2. Inspect the blade for dull or missing teeth and if it has lost its shape.

A3. A light coating of any type of oil will prevent rusting or corrosion of the metal blade.

Teaching Point 5 **Explain, Demonstrate and Have the Cadets Practice Cleaning and Storing Groundsheets**

Time: 10 min Method: Demonstration and Performance

Provide each group with a groundsheet. Have cadets follow along with the instruction, cleaning and folding the groundsheet as it is covered.

WASHING AND DRYING

Cleaning a groundsheet is only required when it is noticeably covered in dirt or clay. If the groundsheet must be washed, use only water. Any type of cleaning solution will remove the waterproofing elements of the groundsheet. Ensure to thoroughly dry the surfaces, as left over moisture may break down and weaken the groundsheet.

FOLDING

To fold the groundsheet complete the following steps:

1. Ensure the groundsheet is completely dry.
2. Lay the groundsheet out, with the inside facing up (Step 1, Figure 11-9-11).
3. Fold the ends in to make a rectangle (Step 2, Figure 11-9-11).
4. Fold in half by bringing the right side to the left side (Step 3, Figure 11-9-11).
5. Fold the ends to the centre – right end to the centre, left end to the centre (Step 4, Figure 11-9-11).
6. Fold in half bringing right side to the left side (Step 5, Figure 11-9-11).
7. If the storage bin is smaller make more folds following the same pattern to reach the desired size for storage.

STEP 1

STEP 2

STEP 3

Figure 11-9-11 (Sheet 1 of 2) Folding a Groundsheet

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STEP 4

STEP 5

Figure 11-9-11 (Sheet 2 of 2) Folding a Groundsheet

D Cdts 3, 2007, Ottawa, ON: Department of National Defence

STORING

The groundsheet should be stored in a cool, dry location out of direct sunlight. Storage bins or large plastic containers work well to organize and store groundsheets.

CONFIRMATION OF TEACHING POINT 5

The cadets' participation in folding a groundsheet will serve as the confirmation of this TP. Questions have been provided if additional confirmation is required.

QUESTIONS

Q1. What should be used to clean a groundsheet?

Q2. What would a cleaning solution do to a groundsheet?

Q3. Where should a groundsheet be stored?

ANTICIPATED ANSWERS

A1. Water should be used to clean a groundsheet.

A2. A cleaning solution may damage or remove the waterproofing of the groundsheet.

A3. A groundsheet should be stored in a cool dry location out of direct sunlight.

END OF LESSON CONFIRMATION

The cadets' participation in cleaning and inspecting the equipment will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

The ability to maintain section equipment after use in the field will prolong its life. Allowing cadets to clean and maintain section equipment will develop a sense of ownership, ensure the items are well cared for and will ensure they last for others to use.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

C0-111 (ISBN 978-0-9740820-2-8) Tawrell, P. (2006). *Camping and Wilderness Survival: The Ultimate Outdoors Book* (2nd ed.). Lebanon, NH: Leonard Paul Tawrell.

ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 10

EO C221.01 – PARTICIPATE IN A DISCUSSION ON CANADA'S WILDERNESS CONSERVATION EFFORTS

Total Time: 60 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TP1, TP2, and TP4 to introduce the cadets to wilderness conservation and to generate interest.

An in-class activity was chosen for TP3 as it is an interactive way to provoke thought and stimulate interest among cadets.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall have developed an appreciation for Canada's wilderness conservation efforts.

IMPORTANCE

It is important for cadets to appreciate the wilderness environment as well as understand the impact they have on it. The environment is very fragile and each cadet should have respect for the land we share. As Army Cadets, there is a need to contribute to efforts which help keep the natural environment's integrity.

Teaching Point 1 **Define and Explain Environmental Terms**

Time: 10 min Method: Interactive Lecture

Explain the following terms.

ENVIRONMENTAL TERMS

Conservation. Conservation is defined as using natural resources (e.g. soil, water, minerals, wildlife, and sunlight) in a way that ensures continued availability for future generations. It includes the preservation, maintenance, usage, restoration, and enhancement of the environment.

Land Ethic. Land ethic is respecting, valuing, and having concern for the natural world.

Ecosystem. An ecosystem is the interaction of living organisms and their environment. Ecosystems include:

- **Abiotic Components.** Physical elements such as water and rocks.
- **Biodiversity.** A composition of communities which have different species. For example, species found in a rainforest will differ from species found in the tundra.
- **Ecosystem Processes.** The engines that make ecosystems work, such as fires, floods, and predation (animals preying on other animals).

Ecological Integrity. Ecosystems have integrity when all components (abiotic, biodiversity, and ecosystem processes) are functioning together. People should enjoy parks without damaging these components.

Natural Resources Canada. Natural Resources Canada (NRCan) is responsible for ensuring proper development of Canada's natural resources, including energy, forests, minerals, and metals. They maintain an up-to-date knowledge base of Canadian land masses and resources.

NRCan is responsible for developing policies and programs to enhance the contribution of the natural resource sector to the economy and to improve the quality of life for all Canadians.

Provincial and National Parks. Provincial and national parks are owned by all Canadians. They are protected from most human development and pollution. The aim of these parks is to promote enjoyment by the public while conserving and enhancing the natural beauty, wildlife, and cultural heritage they contain. These parks are protected by government laws.

The mandate of national parks is to protect lands and waters that represent Canada's natural coast to coast diversity, in a way that restores or maintains ecological integrity, and in a way that allows for visitor activities and appreciation.

Crown Land. Any land that is owned by the federal or provincial government is crown land. Control and authority is placed on the Crown. The amount of crown land varies from province to province. National parks, provincial parks, native reserves, federal military bases, and provincial forests are all various forms of crown land.

Protected Areas. To ensure natural features are safe, areas of land are declared protected. Once declared protected, these areas are subject to numerous laws which help safeguard its interests. There are many protected areas across Canada, such as the Nahanni National Park Reserve of Canada, located in the Northwest Territories.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. What is conservation?

Q2. What are the three components of an ecosystem?

Q3. What is a protected area?

ANTICIPATED ANSWERS

A1. Conservation is defined as using natural resources (e.g. soil, water, minerals, wildlife, sunlight) in a way that ensures continued availability for future generations. It includes the preservation, maintenance, usage, restoration, and enhancement of the environment.

A2. The three components of an ecosystem are abiotic components, biodiversity, and ecosystem processes.

A3. A protected area is an area of land that has been declared protected.

Teaching Point 2 **Discuss Human Impact on Park Environments**

Time: 15 min Method: Interactive Lecture

There are many ways cadets can contribute to minimizing the level of human impact on park environments. Though these points are tailored to Parks Canada and national parks, they should be considered for any bivouac site used by cadets.

ECOSYSTEM MANAGEMENT

By working closely with other land management agencies, Parks Canada demonstrates leadership in their goal to develop a better understanding of the relationship between existing land use practices and their effects on the natural environment.

It involves an understanding and a partnership among all those whose activities influence the ecological integrity of the park. For example, a cadet corps holding a weekend bivouac FTX may put strain on the environment through daily activities such as setting up shelters, constructing and lighting fires, and disposing of wastes. Other agencies and people also have an impact on this park ecology.

The concept of partnerships is also important since universities, conservation organizations, and the private sector have a lot to contribute towards research and environmental monitoring initiatives within national parks.

SUSTAINABLE DEVELOPMENT

Sustainable development involves meeting the needs of the present without compromising the needs of future generations. It is a way of thinking and acting. It is also a way of ensuring that social, economic, and environmental considerations are integrated into our decisions and our actions. Choices made now will affect choices that people can make for years to come.

The Government of Canada submits a sustainable development strategy (SDS) to Parliament every three years. Once this is approved, Parks Canada develops their SDS which outlines how they will integrate the principles into their policies, programs, legislation, and operations.

Sustainable development strategies are developed every three years and can be accessed by searching “sustainable development strategy” in the Parks Canada or Environment Canada Website.

ENVIRONMENT CANADA’S PROTECTED AREAS

The purpose of Environment Canada’s protected areas is to preserve rich and diverse populations. The Canadian Wildlife Service (CWS) is a part of Environment Canada. CWS is responsible for the protection and management of migratory birds and nationally significant habitats and endangered species. They also work on other wildlife issues of national and international importance, as they arise.

CWS works with many groups to ensure that areas are protected. There are approximately 11.8 million hectares of protected wildlife habitat – an area more than twice the size of Nova Scotia.

Components of this network include:

- National Wildlife Areas (NWAs),
- Migratory Bird Sanctuaries (MBSs), and
- Marine Wildlife Areas (MWAs).

Most protected areas permit public access and some offer visitor facilities, activities, and services. There may be exhibits, trails, brochures, and viewing stands to help visitors understand their surroundings. Canadian Wildlife Services has prohibited visitation to some protected areas during critical periods such as nesting and moulting (shedding feathers or hair).

To find out more information about Environment Canada’s protected areas, consult the following Websites:

- http://www.cws-scf.ec.gc.ca, or
- http://www.hww.ca/hww2.asp?cid=4&id=231.

LOCAL, REGIONAL, AND GLOBAL CONCERNS

Movement of Exotic Species

Exotic species are also commonly known as invasive species and refer to plants, animals, fungi, or other organisms that have been accidentally or purposefully introduced to an area outside of their origin.

Introductions can be accidental or intentional. The results of these introductions can vary from damaging the habitat to having no effect. A species may be introduced because it appears to be beneficial for the environment or through planting impure seeds. Some species may appear after disasters such as forest fires. Humans may carry some of these species when travelling. Species have been found on vehicles and clothing. This is normally accidental.

Though the majority of introduced plant species do not pose ecological or economic problems, some have become quite harmful in their new habitat. For an introduced species to become an invader, it must arrive, survive, and thrive.

An invasive species: The Zebra Mussel

The zebra mussel, which originated in eastern Europe, is a freshwater mollusc that was accidentally introduced to the Great Lakes. It was discharged in water from ship's ballast tanks in 1986, and has flourished ever since. After being in a favourable environment for about five years, it can reach densities of hundreds of thousands per square metre.

The zebra mussel is a nuisance species and brings with it many concerns. It blocks conduits (water intakes, pipelines, tunnels), corrodes ship hulls, covers wrecks, causes loss of habitat, and changes the performance of ecosystems. There have been a few solutions tried, which have not been very effective. The cost of the invasion can costs millions of dollars each year, mainly for cleaning and control measures.

Air and Water Pollution

Air pollution is a huge environmental concern. The quality of air is an important factor in the quality of life. It is generated by many sources, such as the burning of fossil fuels from industries, transportation, and heating.

Water sources such as lakes, rivers, streams, and runoffs become polluted when feces come into contact with the water. As a rule, a person should be at least 60 m from water before defecating. Animal feces will also pollute water sources.

Greenhouse Gas Emissions

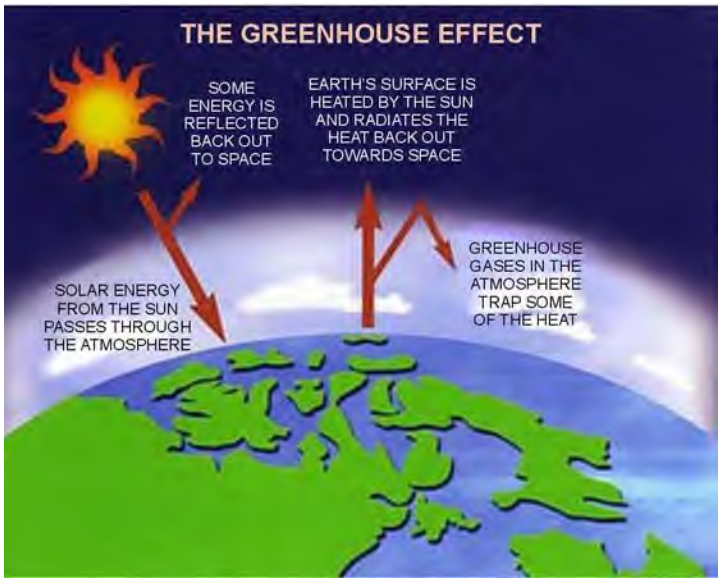
(Adapted from *The Climate is Changing our National Parks*, Parks Canada, Government of Canada).

The Earth's climate changes through natural processes, but also as a result of greenhouse gas (GHG) emissions.

There has been an increase in global temperature over the last 100 years. The effects of climate change are evident on a local to a global scale. Sea levels are rising, polar ice is melting and weather is becoming less predictable.

Parks Canada is trying to reduce the GHG impacts of its operations and activities, by:

- reducing the size, fuel use, and GHG emissions of its passenger cars and light trucks;
- improving the energy-efficiency of its buildings and facilities; and
- increasing the use of renewable energy technologies.



Parks Canada, 2007, The Climate is Changing our National Parks. Copyright 2007 by Government of Canada. Retrieved 21 March 2007, from http://www.pc.gc.ca/docs/v-g/ie-ei/cc/climate_e.asp

Figure 11-10-1 The Greenhouse Effect

Solid Waste Management

Everything carried into a site should be carried out. Park communities are no exception. Collectively, park residences and commercial establishments such as restaurants and hotels generate huge volumes of garbage and food waste.

Bears are a huge concern directly related to waste management. Bear-proof management of garbage is essential for the safety of people and the protection of bears and other wildlife.

Efforts to reduce, reuse, and recycle go a long way to cutting down on the amount of garbage generated. This helps reduce the consumption of valuable resources and the need for valuable land to be converted to landfills.

Wastewater Management

There will always be some leftover water, either from cooking or bathing. Never dispose of wastewater close to a stream. If it must be done, carry the water at least 60 m away from streams or lakes. Dishwater should be strained and scattered.

Water Conservation

Drinking contaminated water can be very serious. When camping, conserve whatever water you have and seek a reliable source as soon as possible.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. A sustainable development strategy is planned and implemented how often?

Q2. Approximately how much area is designated as protected wildlife habitats?

Q3. What are the local, regional, and global concerns?

ANTICIPATED ANSWERS

A1. A sustainable development strategy is planned for and implemented for three years.

A2. Approximately 11.8 million hectares of land is declared as protected wildlife habitat.

A3. The local, regional, and global concerns are movement of exotic species, air and water pollution, greenhouse gas emissions, solid waste management, wastewater management, and water conservation.

Teaching Point 3 **Conduct a Conservation Activity**

Time: 15 min Method: In-class Activity

ACTIVITY

OBJECTIVE

The objective of this activity is to brainstorm environmental efforts in which the cadets can participate to help conserve the environment.

RESOURCES

- One sheet of flipchart paper per group;
- Tape; and
- A marker.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Divide the cadets into groups of a maximum of six.
2. Allow five minutes for the cadets to brainstorm, writing their responses on flipchart paper. Ask the cadets about the environmental efforts they take to help conserve the environment:
   - at home;
   - at school; and
   - in the field.

Following the principles of Leave No Trace camping is a key step in environmental conservation.

3. Tape each group's flipchart paper on a wall or in a place visible to all the cadets.
4. Discuss the points that the cadets brainstormed.

Some points may not be easy to implement; however, there are always small steps that cadets can take to ensure that people enjoy the environment for years to come.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 3

The cadets' participation in the in-class activity will serve as the confirmation of this TP.

Teaching Point 4 **Discuss the Duties of Park Conservation Officials**

Time: 10 min Method: Interactive Lecture

DUTIES OF PARK CONSERVATION OFFICIALS

Study, Monitor, and Manage Ecosystems

Park conservation officials ideally have an education in natural science or natural resource management. Their knowledge is used to collect scientific information, assess the condition of heritage resources, and monitor ecological integrity. They contribute to the preparation of management plans and play a direct role in implementing ecosystem management plans. This involves research, monitoring wildlife, capturing animals, and relocating them in rare instances when they pose a public safety hazard.

Serve as Public Spokespersons

Park conservation officials are normally well trained and educated. They are great advocates for the public. It is their duty to keep the public informed about park issues, and to deliver public safety programs. Through public education and awareness, visitors understand their role in park conservation and accident prevention.

Conduct Search and Rescue Operations

Park conservation officials are trained in first aid and rescue procedures. They respond when people are lost, injured, or endangered. Park conservation officials are responsible for providing search and rescue missions and evacuations in all kinds of terrain and environmental conditions. They implement avalanche control, fire prevention, wildlife/human safety measures, and safety inspections. Cooperation with police, provincial conservation officers, and other resource management and enforcement agencies is a vital key.

Maintain Public Safety

Park conservation officials assess the risks involved from visitor activities. This includes monitoring environmental hazards and reducing incidents through public education and awareness.

Enforce Park-Specific Laws and Regulations

Each park has a set of rules for the public to abide by. Park conservation officials ensure that these rules are being followed, and impose penalties to those who disobey.

For more information about on the duties of park officials, visit Parks Canada's Website at http://www.pc.gc.ca/agen/empl/itm3-/emp3a2_e.asp.

CONFIRMATION OF TEACHING POINT 4

QUESTIONS

Q1. Ideally, what type of education do park officials have?

Q2. How do park officials serve the public?

Q3. What types of search and rescue procedures do park officials implement?

ANTICIPATED ANSWERS

A1. Ideally, park officials are educated in natural science or natural resource management.

A2. Park officials serve the public through public education and awareness, visitors understand the role of park officials in park conservation and accident prevention.

A3. Park officials implement avalanche control, fire prevention, wildlife/human safety measures, and safety inspections.

END OF LESSON CONFIRMATION

QUESTIONS

Q1. What are provincial and national parks?

Q2. What is Parks Canada doing to try to reduce the GHG impacts of its operations and activities?

Q3. What are the duties of park conservation officials?

ANTICIPATED ANSWERS

A1. Provincial and national parks are owned by all Canadians. They are protected from most human development and pollution. The aim of these parks is to promote enjoyment by the public while conserving and enhancing the natural beauty, wildlife, and cultural heritage they contain. These parks are protected by government laws.

A2. Parks Canada is trying to reduce the GHG impacts of its operations and activities by:

- reducing the size, fuel use, and GHG emissions of its passenger cars and light trucks;
- improving the energy efficiency of its buildings and facilities; and
- increasing the use of renewable energy technologies.

A3. Park conservation officials are responsible for studying, monitoring and managing ecosystems, serving as public spokespersons, conducting search and rescue operations, maintaining public safety and enforcing park-specific laws and regulations.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

There are small steps that everyone can take to help conserve the environment. Protecting the environment is everyone's responsibility. When cadets are in the field, conservation should be a key factor when making decisions that could affect the environment.

INSTRUCTOR NOTES/REMARKS

This lesson may be delivered by a guest speaker. The guest speaker should present park-specific duties for which they are responsible, while stressing the importance of conserving the environment.

REFERENCES

C2-052 Parks Canada. (2007). *Parks Canada*. Retrieved 22 February 2007, from http://www.pc.gc.ca/agen/index_E.asp.

C2-053 Canadian Wildlife Service and Canadian Wildlife Federation. (2007). *Hinterland Who's Who – Environment Canada's Protected Areas Network*. Retrieved 22 February 2007, from http://www.hww.ca/hww2.asp?cid=4&id=231.

C2-054 Office of the Auditor General of Canada. (2007). *Office of the Auditor General of Canada*. Retrieved 22 February 2007, from http://www.oag-bvg.gc.ca/domino/oag-bvg.nsf/html/menue.html.

C2-066 Environment Canada. (2007). *Canada's Clean Air Act*. Retrieved 21 March 2007, from http://www.ec.gc.ca/cleanair-airpur/default.asp?lang=En&n=6EBBF05D-1.

C2-067 Natural Resources Canada. (2007). *About Us*. Retrieved 21 March 2007, from http://www.nrcan-rncan.gc.ca/inter/aboutus_e.html.

C2-070 Environment Canada. (2004). *Canadian Wildlife Service: Focus on the Canadian Wildlife Service*. Retrieved 23 March 2007, from http://www.cws-scf.ec.gc.ca/focus_e.cfm#targ1.

C2-071 Environment Canada. (2002). *The Unfolding Story of the Zebra Mussel in the St. Lawrence River*. Retrieved 23 March 2007, from http://www.qc.ec.gc.ca/csl/pub/pub004_e.html.

ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 11

EO C221.02 – CONSTRUCT FIELD AMENITIES

Total Time: 180 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Make copies of the handouts located at Annexes D and E for each cadet.

PRE-LESSON ASSIGNMENT

Each cadet must gather three sticks or poles approximately one inch in diameter prior to this lesson.

APPROACH

Demonstration and performance was chosen for TP1 as it allows the instructor to explain and demonstrate tying lashings while providing an opportunity for the cadets to practice tying lashings under supervision.

A practical activity was chosen for TP2 as it is an interactive way to allow the cadet to experience building field amenities in a safe, controlled environment. This activity contributes to the development of lashing skills and knowledge in a fun and challenging setting.

INTRODUCTION

REVIEW

A review of the parts of a rope, from EO M121.03 (Tie Knots and Lashings) may be required before beginning this lesson.

OBJECTIVES

By the end of this lesson the cadet shall have constructed two field amenities, using knots and lashings.

IMPORTANCE

It is important for cadets to know how to tie knots and lashings. Constructing field amenities is a fun way to incorporate knot tying to enhance a field training site.

Teaching Point 1 **Explain, Demonstrate, and Allow Time for Cadets to Practice Tying Lashings**

Time: 40 min Method: Demonstration and Performance

Distribute handouts for tying lashings.

For this skill lesson it is recommended that instruction take the following format:

1. Explain and demonstrate that complete skill while cadets observe.
2. Explain and demonstrate each step required to complete the skill. Monitor cadets as they imitate each step.
3. Monitor the cadets' performance as they practice the complete skill.

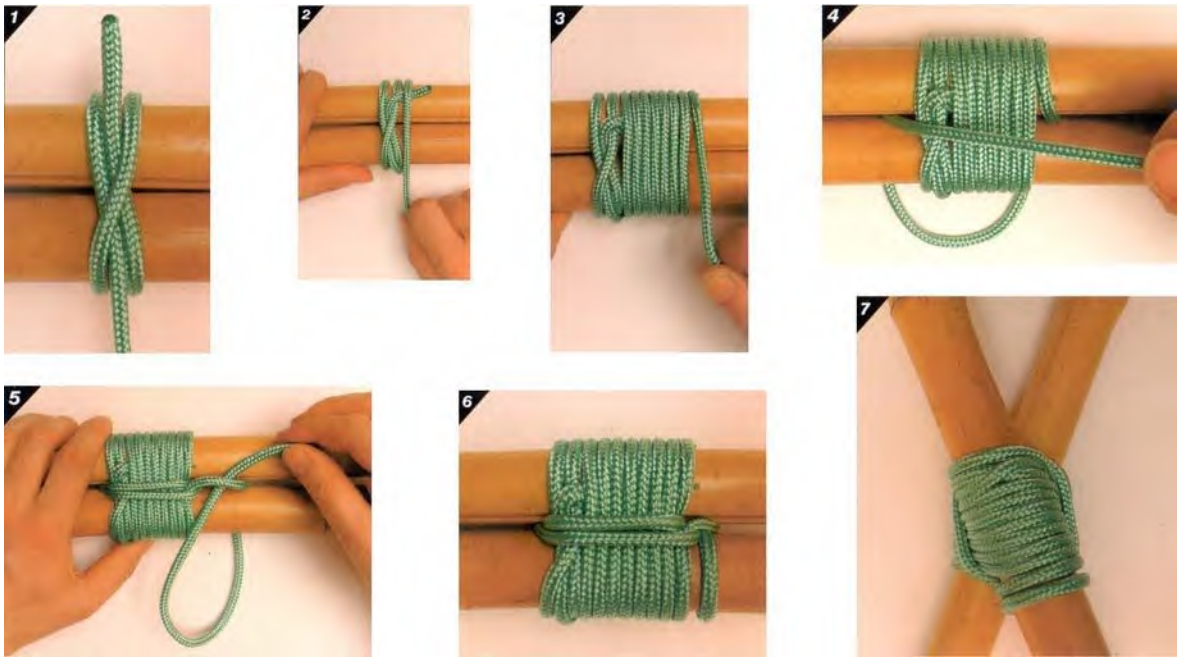
Note: Assistant instructors may be employed to monitor cadet performance.

SHEER LASHING

Also called a round lashing, it has two distinct uses. First, it creates an A-frame or set of sheer legs. Second, two or three sheer lashings can be used to bind poles together to make a longer spar (horizontal pole).

Procedure

1. Make a clove hitch around both poles.
2. Wrap the standing end around both poles, trapping the working end of the clove hitch underneath.
3. Make eight to ten more wraps around the poles.
4. Bring the rope up between the spars and make two tight turns parallel to the poles.
5. Make a clove hitch around one of the poles.
6. Ensure the lashing is tight and secure.
7. Sheer lashing opened to create a pair of sheer legs or an A-frame.



Pawson, D., Pocket Guide to Knots & Splices, Chartwell Books, Inc. (pp. 184-185)

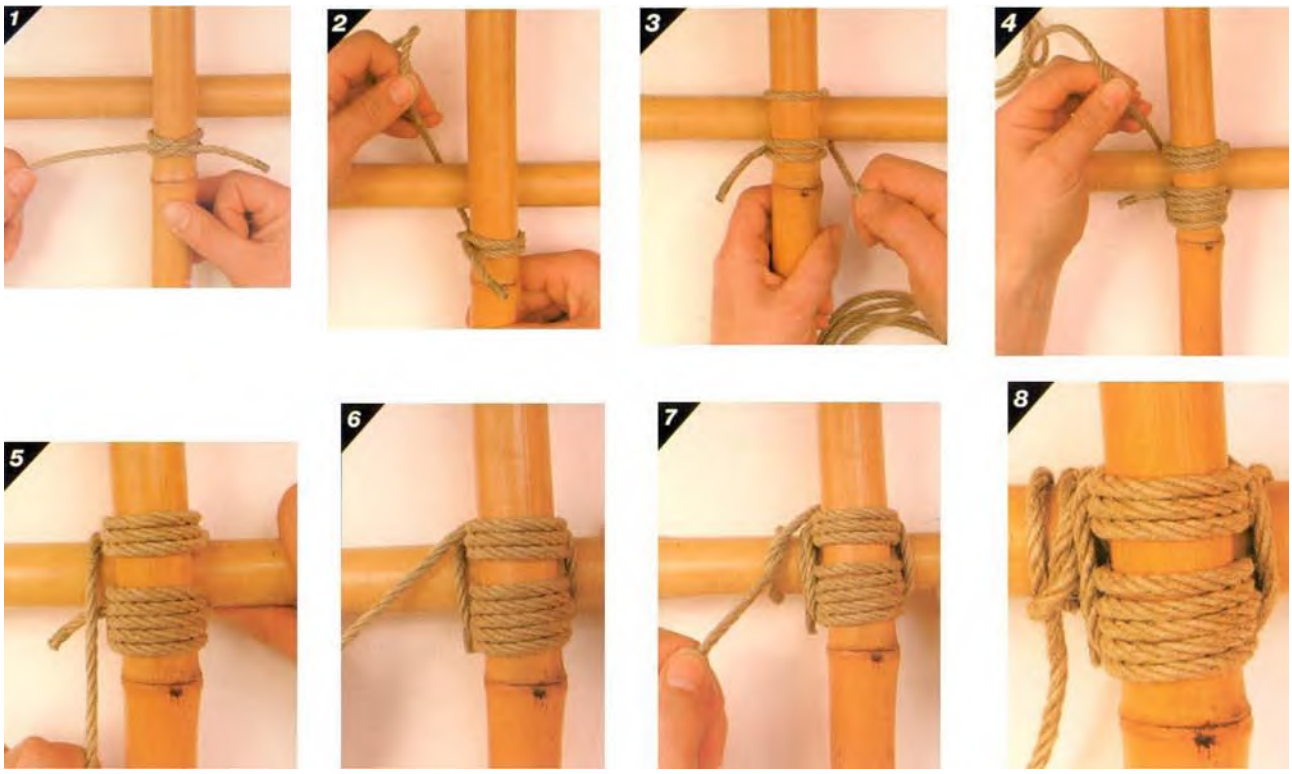
Figure 11-11-1 Sheer Lashing

SQUARE LASHING

A square lashing secures two poles together at 90 degrees. The rope used to make the lashing should be considerably smaller than the size of the poles. For the lashing to be effective, each turn must be pulled as tight as possible as it is made.

Procedure

1. With the vertical pole on top of the horizontal pole, make a clove hitch. The vertical pole runs up and down, and the horizontal pole left to right.
2. Bring all of the rope around and behind the horizontal pole.
3. Tightly bring the rope over the vertical pole and back behind the horizontal pole, back to the clove hitch.
4. Continue to make three complete turns around the poles, pulling the rope tight after each turn.
5. After passing the clove hitch, tightly bring the rope to the horizontal pole from behind and start wrapping around the two poles. These wraps are called frapping turns.
6. Make two complete sets of frapping turns.
7. Make a clove hitch around the horizontal pole.
8. Ensure lashing is tight and secure.



Pawson, D., Pocket Guide to Knots & Splices, Chartwell Books, Inc. (pp. 180-181)

Figure 11-11-2 Square Lashing

TIMBER HITCH

The timber hitch is included because it is required for the diagonal lashing. It should not take a great amount of time to complete.

Procedure

1. Take the standing end and wrap it around the object, then around the standing part of the rope.
2. Twist the working part around itself by wrapping it around the working end.
3. Continue making twists until the twisted rope is long enough to go around the object. Pull on the standing part to tighten the hitch.

Pawson, D., Pocket Guide to Knots & Splices, Chartwell Books, Inc. (p. 139)

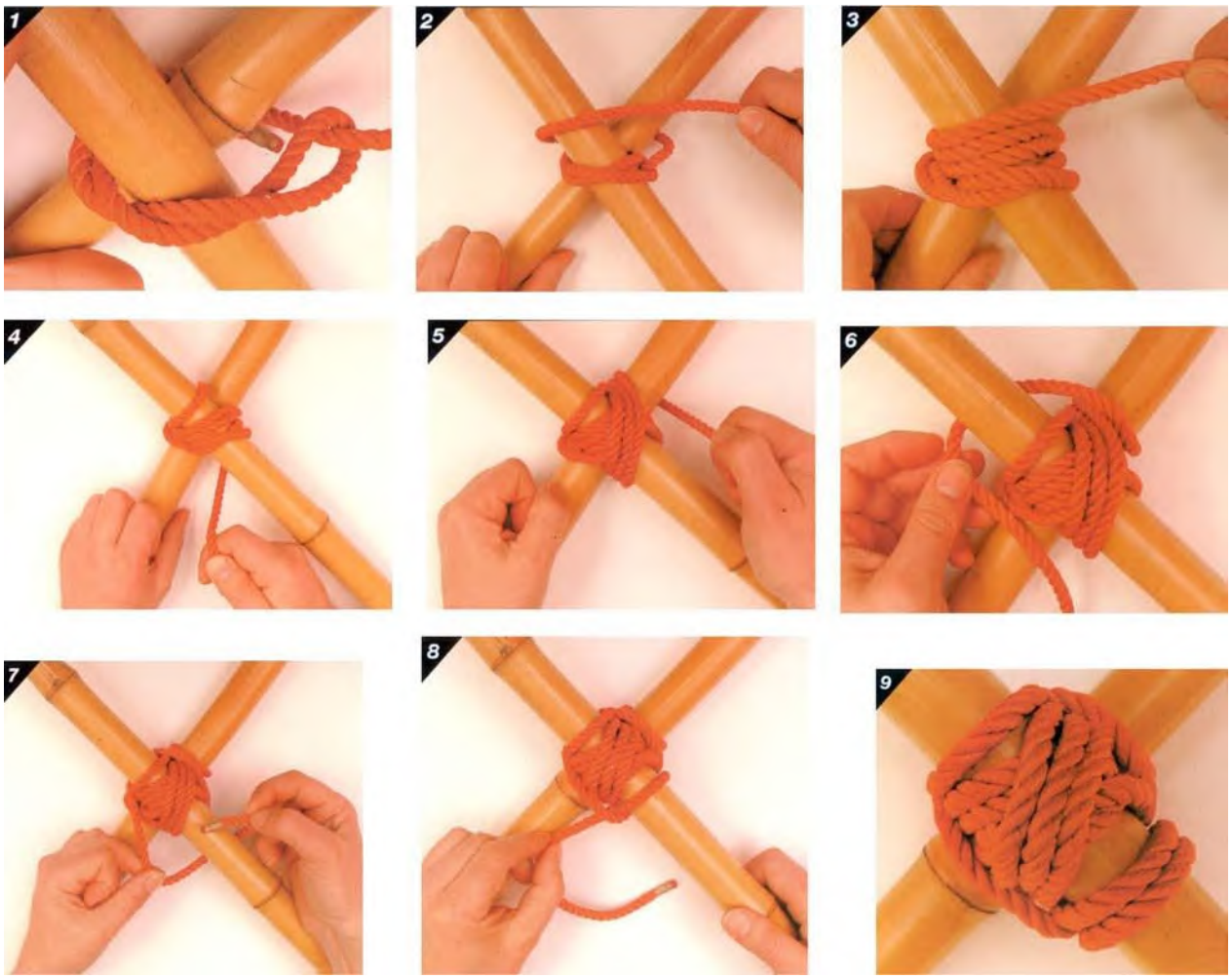
Figure 11-11-3 Timber Hitch

DIAGONAL LASHING

A diagonal lashing is used at a crossing point, to prevent poles from springing apart.

Procedure

1. Make a timber hitch around the two crossed poles.
2. Make a turn around the two crossed poles, pulling the timber hitch tight.
3. Make three more complete turns in the same direction, pulling them tight.
4. Change direction by coming around one of the poles.
5. Make four full turns around the two poles at right angles to the original turns, pulling them tight.
6. Take the working end of the rope around one of the poles, making a frapping turn.
7. Make two complete frapping turns.
8. Make a clove hitch.
9. Ensure lashing is tight and secure.



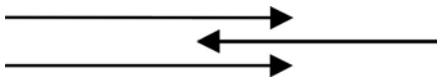
Pawson, D., Pocket Guide to Knots & Splices, Chartwell Books, Inc. (pp. 182-183)

Figure 11-11-4 Diagonal Lashing

FIGURE-OF-EIGHT LASHING

The figure-of-eight lashing is used to join three poles together, to create a tripod.

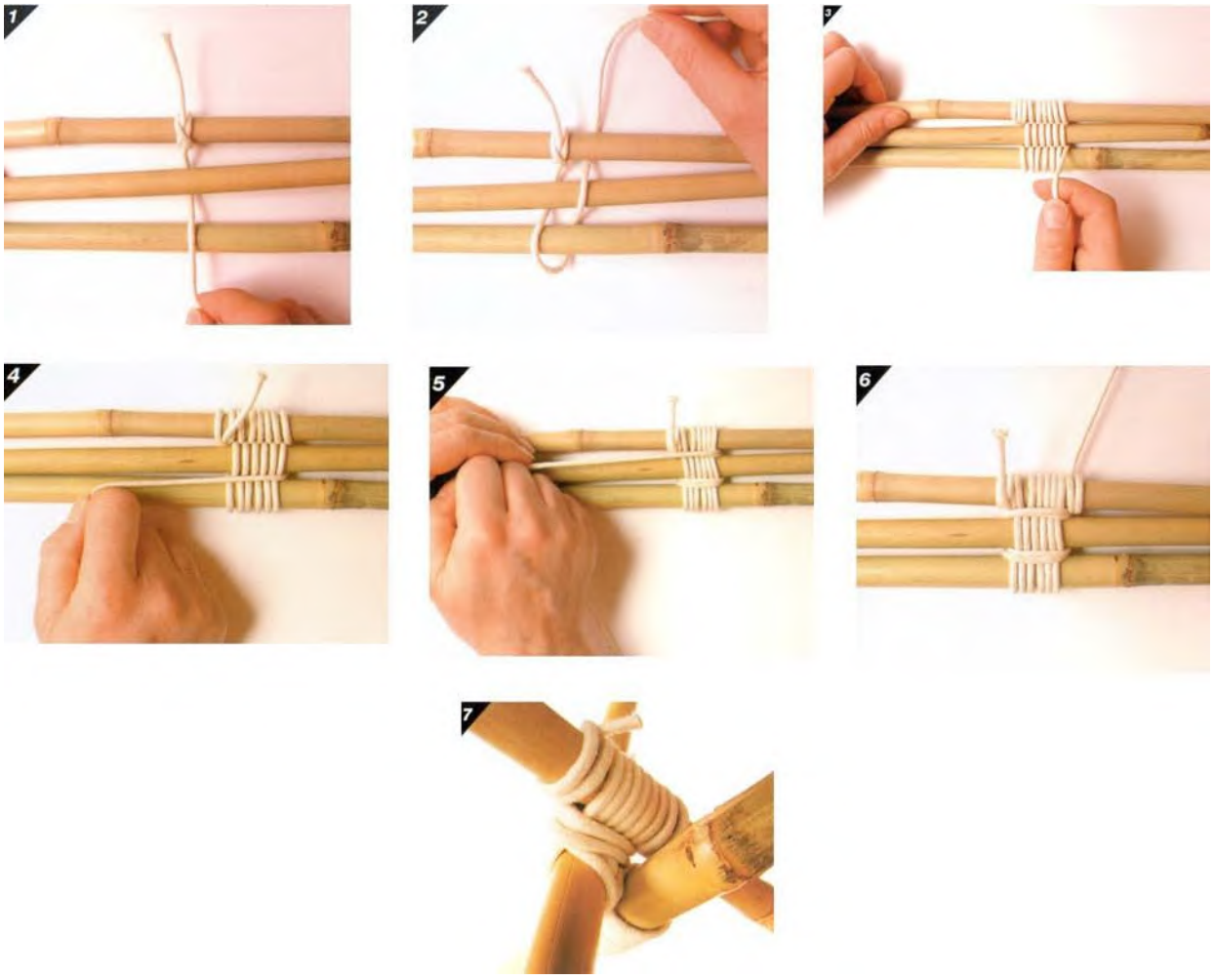
When making a figure-of-eight lashing, the poles shall be placed staggered (see diagram below).



Procedure

1. Make a clove hitch around one of the outside poles. Bring the rope under and over the other poles.
2. Go around the pole furthest away from the start and weave the rope back over and under.

3. Continue to weave the rope under and over eight times. Bring the rope up in between any two poles.
4. Pull the rope parallel to the poles and put in two frapping turns.
5. Make three frapping turns in between the remaining poles.
6. Make a clove hitch around the pole that already has a clove hitch (from the beginning) at the opposite end.
7. Open up the poles.



Pawson, D., Pocket Guide to Knots & Splices, Chartwell Books, Inc. (pp. 187-188)

Figure 11-11-5 Figure-of-eight Lashing

CONFIRMATION OF TEACHING POINT 1

The cadets' participation in tying the lashings will serve as the confirmation of this TP.

Teaching Point 2 **Construct Field Amenities**

Time: 130 min Method: Practical Activity

FIELD AMENITIES

Field amenities will be chosen from the following:

- a bench with back rest;
- a camp table;
- a bulletin board; and
- a podium.

Pictures and instructions of field amenities are located at Annex E.

ACTIVITY

OBJECTIVE

The objective of this activity is to construct field amenities for a bivouac site, using the knots and lashings learned.

RESOURCES

- Rope;
- Natural resources, found in the field;
- 4 lb axe (36-inch handle);
- 24-inch bow saw; and
- Diagrams of field amenities (located at Annex E).

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Divide cadets into groups with a minimum of four and a maximum of eight.
2. Depending on need and availability of resources, allow cadets to choose the field amenity they will construct.
3. Distribute instructions located at Annex E. Cadets will be required to select and utilize the most effective knots and lashings to make their field amenity.
4. When amenities are completed, allow time for groups to view all constructed amenities.

5. Depending on local regulations, all material used in the construction shall be redistributed to the area once the activity is completed.

SAFETY

- Ensure cadets are employing safe tool use at all times.
- The wood chosen for the field amenities must be strong enough to hold a substantial amount of weight.
- Established boundaries shall be respected at all times.

CONFIRMATION OF TEACHING POINT 2

The cadets' participation in the activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in the construction of field amenities in TP2 will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Field amenities will enhance any base camp. They are relatively easy to construct and are a fun way to reinforce usage of knots. They can make cadets comfortable in the field when it is a home away from home.

INSTRUCTOR NOTES/REMARKS

Natural resources found in the field, such as fallen or dead wood, are to be used for construction. Instructors are to confirm with local authorities that natural resources may be used for this activity.

If field amenities are being evaluated, they shall be judged on stability, quality of lashings, and overall appearance.

REFERENCES

C2-007 (ISBN 0-7858-1446-9) Pawson, D. (2001). *Pocket Guide to Knots and Splices*. Edison, NJ: Chartwell Books, Inc.

C2-008 (ISBN 0-00-265314-7) Wiseman, J. (1999). *The SAS Survival Handbook*. Hammersmith, London: HarperCollins Publishers.

C2-046 PioneeringProjects.org (2004). *PioneeringProjects.org*. Retrieved 20 February 2007, from http://www.pioneeringprojects.org/projects/index.htm.

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ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 12

EO C221.03 – IDENTIFY SPECIES OF TREES

Total Time: 60 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Prior to this lesson, it is recommended that instructors consult local resources to identify the most common species of trees within the area.

Prior to this lesson, find an area containing as many types of trees as possible. With brightly coloured tape, mark four trees that cadets can identify. Prepare activity instructions according to the area.

Photocopy Annex F for each cadet for the activity in TP3.

For an indoor activity, photocopy Annex G to post in the classroom. Ensure all references are removed.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TP1 and TP2 to introduce species of trees and to generate interest.

A practical activity was chosen for TP3 as it is an interactive way to identify species of trees and to confirm the cadet's comprehension of the material.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall identify species of trees.

IMPORTANCE

It is important for cadets to know about species of trees so they may gain a greater understanding of the ecosystem and develop an appreciation for the outdoors.

Teaching Point 1 **Identify Characteristics of Deciduous Trees**

Time: 20 min Method: Interactive Lecture

There are approximately 170 species of trees in Canada.

Deciduous trees are often called broadleaved trees because they shed annually in the fall. They change colour and lose their leaves before winter. Deciduous trees may produce flowers and fruit depending on the season.

The most common deciduous trees in Canada are:

- alder;
- beech;
- birch;
- chestnut;
- elm;
- hickory;
- maple; and
- oak.

Deciduous trees account for the majority of tree species in Canada.

ENVIRONMENT

Deciduous trees are mainly found in the boreal forest. A milder climate is better for deciduous trees.

Natural Resources Canada, 2004, The Atlas of Canada, Retrieved 29 March 2007, from http:// atlas.nrca.gc.ca/site/English/learningresources/theme_modules/borealforest/forest_regions.jpg/image_view

Figure 11-12-1 Map of the Forest Regions of Canada

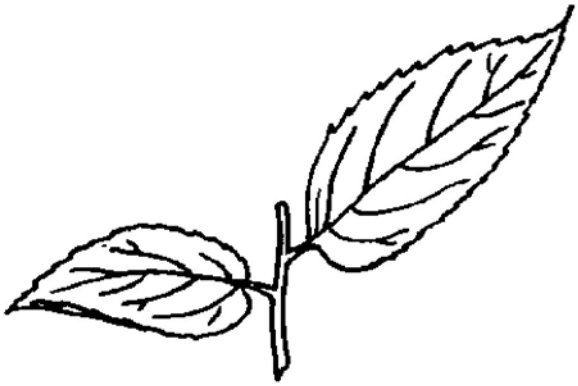
SEEDS

Deciduous trees have seeds contained within a fruit or a flower.

LEAF ATTACHMENT

Deciduous trees are usually identified by their leaves. There are three types of leaf attachment: alternate, opposite and whorled leaves.

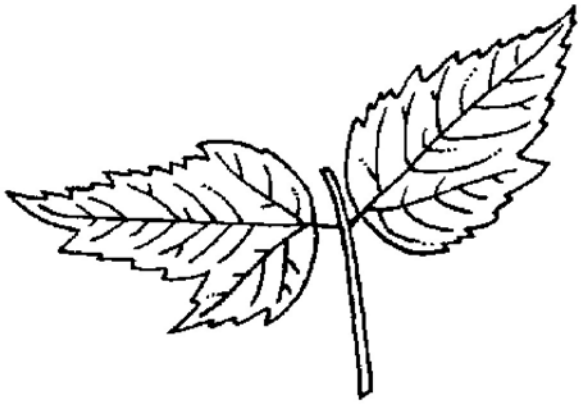
Alternate Leaves. They are attached to alternating nodes along the branch. There is a single leaf at each node. The alder, beech, birch, cherry, elm and oak trees all have alternate leaves.



University of Kentucky, College of Agriculture - Online Publications - Forestry Publications Youth Education, 2007, Introducing Yourself to Trees, Copyright 2007 by University of Kentucky, College of Agriculture. Retrieved 22 March 2007, from http://www.ca.uky.edu/agc/pubs/for/for65/1b.gif

Figure 11-12-2 Alternate Leaf Arrangement

Opposite Leaves. They are attached to the branch directly opposite one another. There are two leaves at each node. The chestnut, hickory and maple trees all have opposite leaves.



University of Kentucky, College of Agriculture - Online Publications - Forestry Publications Youth Education, 2007, Introducing Yourself to Trees, Copyright 2007 by University of Kentucky, College of Agriculture. Retrieved 22 March 2007, from http://www.ca.uky.edu/agc/pubs/for/for65/1a.gif

Figure 11-12-3 Opposite Leaf Arrangement

Whorled Leaves. They are attached to the tip of the twig in a circle. There are more than two leaves at each node. Fruit trees like apple and plum trees usually have whorled leaves.

University of Kentucky, College of Agriculture - Online Publications - Forestry Publications Youth Education, 2007, Introducing Yourself to Trees, Copyright 2007 by University of Kentucky, College of Agriculture. Retrieved 22 March 2007, from http://www.ca.uky.edu/agc/pubs/for/for65/1a.gif

Figure 11-12-4 Whorled Leaf Arrangement

Plants and trees that have whorled leaves often have opposite leaf pairs as well.

LEAF TYPE

Deciduous trees can have two types of leaves – simple and compound leaves.

Simple Leaves. Simple leaves are composed of one leaf. All types of alder, beech, birch, chestnut, elm, maple and oak trees fall under the simple leaf category.

Natural Resources Canada, 2002, Round Leaves, Retrieved 22 March 2007, from http://www.cfl.scf.rncan.gc.ca/imfec-idecf/hosttrees/deciduous/leaves_round.html

Figure 11-12-5 Simple Leaf

Compound Leaves. Compound leaves are composed of several leaflets and they make up the entire leaf. All types of hickory trees fall under this category.

Natural Resources Canada, 2002, Compound Leaves, Retrieved 22 March 2007, from http://www.cfl.scf.rncan.gc.ca/imfec-idecf/hosttrees/deciduous/leaves_compound.html

Figure 11-12-6 Compound Leaf

BARK

Bark protects trees from the outside world, against weather elements, diseases and insects. It also keeps moisture in during dry periods.

Deciduous trees have different types of bark depending on the tree and its environment.

Red Alder Bark. The bark is thin, greenish on young trees, turning grey to whitish with age. The colour may also be ashy-gray. It is often draped with moss.

Lichens of North America, 2007, Lichens and Ecosystems, Copyright 2007 for Stephen and Sylvia Sharnoff. Retrieved 30 March 2007, from http://www.lichen.com/bigpix/aldersbare.html

Figure 11-12-7 Red Alder Bark

Beech Bark. The bark is smooth and has ridges. The colour can range from gray to blue-gray.

Ibiblio, the Public's Library and Digital Archive, 2006, Index of/botnet/angiospermbark. Retrieved 30 March 2007, from http://www.ibiblio.org/botnet/angiospermbark/beech.jpg

Figure 11-12-8 American Beech Bark

Birch Bark. The bark is thin, white to reddish-brown, with dark horizontal slits. It peels in papery strips, exposing reddish-orange inner bark, which will gradually turn black with age.

Richard's Notes, 2004, White Birch Bark, Copyright 2004 by Richard's Note. Retrieved 27 March 2007, from http://www.richardsnotes.org/archives/2004/03/page/2/

Figure 11-12-9 Birch Bark

The bark of all species of birch is excellent for tinder, kindling and torches. It is full of resinous oil which blazes up and will burn in the wind.

Chestnut Bark. The bark colour may range from dark to pale brown with touches of gray. It is broken into broad, flattened scaly ridges.

Bioimages, Copyright 2002 by Bioimages. Retrieved 30 March 2007, from http://www.cas.vanderbilt.edu/bioimages/species/aehi.htm

Figure 11-12-10 Chestnut Bark

Elm Bark. The bark is dark gray in flat-topped ridges.

Bioimages, Copyright 2002 by Bioimages. Retrieved 30 March 2007, from http://www.cas.vanderbilt.edu/image/u/ulse--brlarge16180.htm

Figure 11-12-11 Elm Bark

Hickory Bark. The bark is composed of long and shaggy rectangular pieces.

Firewood, Copyright 2007 by Donnan.com. Retrieved 27 March 2007, from http://www.donnan.com/firewood.htm

Figure 11-12-12 Hickory Bark

Maple Bark. The bark is scaly and creased.

Firewood, Copyright 2007 by Donnan.com. Retrieved 27 March 2007, from http://www.donnan.com/firewood.htm

Figure 11-12-13 Sugar Maple Bark

Oak Bark. The bark is usually greyish-black with thick grooves and scales. It is composed of vertical blocks of scaly plates.

Firewood, Copyright 2007 by Donnan.com. Retrieved 27 March 2007, from http://www.donnan.com/firewood.htm

Figure 11-12-14 Oak Bark

USAGE

Deciduous trees are also called hardwood. Thirty-two species of deciduous trees are used commercially. The following illustrates some of the various products made from hardwood:

- furniture (dining room tables, coffee tables, beds, bookcases, etc.);
- musical instruments (guitars, banjos, violins, drums, drumsticks, etc.);
- pencils;
- tool handles;
- ladders;
- picnic tables; and
- telephone poles.

FIREWOOD

Hardwood is slow burning, producing good steady heat but poor light.

Alder, beech, birch, chestnut, elm, hickory, maple and oak are classified under hardwood.

Maple wood ignites easily and it makes a steady flame.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. Why are deciduous trees called broadleaves?

Q2. Name the three types of leaf attachment.

Q3. Name four of the most common deciduous trees in Canada.

ANTICIPATED ANSWERS

A1. Deciduous trees are often called broadleaves because they shed annually in the fall.

A2. Alternate, opposite and whorled.

A3. Alder, beech, birch, chestnut, elm, hickory, maple and oak.

Teaching Point 2 **Identify Characteristics of Coniferous Trees**

Time: 20 min Method: Interactive Lecture

Coniferous trees are collectively referred to as conifers or evergreens. They all have leaves that look like needles (pines or spruces) or scales (cedars). Coniferous trees generally have persistent foliage (leafage) consisting of needles or scales.

Persistent foliage is a characteristic of evergreen trees. It means they do not shed their leaves in the fall.

Coniferous trees are usually distinguished from one another by their bark, the number of needles in each bundle, the way the needles are arranged on the twigs, and the cone size, shape and colour.

The most common coniferous trees in Canada are:

- cedar;
- fir;
- hemlock;
- larch;
- pine;
- spruce; and
- tamarack.

ENVIRONMENT

Coniferous trees are mainly found in the northern hemisphere, in cool climates. They populate the boreal forest and the mountains.

SEEDS

Coniferous seeds are not contained in a fruit. The seeds are born on scales which are grouped together to form a cone. The cone is the reproductive structure of the coniferous tree. It consists of a central axis covered with scales that are tightly pressed together. At maturity, cones contain seeds. Cones are like flowers.

The Canadian Encyclopedia, 2007, Conifers, Copyright 2007 by Alberta Forest Service, Retrieved 22 March 2007, from http://www.thecanadianencyclopedia.com/index.cfm?PgNm=TCE&Params=A1SEC818695

Figure 11-12-15 Cones

NEEDLE ARRANGEMENT

There are three types of needle arrangement – single, clustered and overlapping scales.

Single Needle. The needles are not joined in a bundle. There is only one needle. Fir, hemlock and spruce trees all fall under this category.

Blue Ridge Community College, 2007, Arboretum-Interactive Key, Retrieved 27 March 2007, from http://www1.brcc.edu/murray/interactive_key/key/needles/nl.htm

Figure 11-12-16 Single Needle Fir

Clustered Needles. Clustered needles are wrapped at the base. Larch, pine and tamarack trees fall under this category.

Wildflowers of Prince Edwards County, 2003, White Pine, Retrieved 23 March 2007 from http://www. http://www.pec.on.ca/wildflowers/flowers.php?id=514

Figure 11-12-17 Clustered Needles

Overlapping Scales. Only trees in the cedar family have this type of needle.

Wikipedia, 2006, Thuja Plicata. Retrieved 30 March 2007, from http://en.wikipedia.org/wiki/thuja_plicata

Figure 11-12-18 Red Cedar Overlapping Scales

Canada's aboriginal people would boil six 10 cm cedar branches in a large pot of 4 litres of water to make cedar tea.

BARK

Bark protects the tree from the outside world, against weather elements, diseases and insects. It also keeps moisture in during dry periods.

Coniferous trees have different types of bark depending on the tree and its environment.

Cedar Bark. Cedar bark is grey, stringy and tears off in long strips on mature trees. It is fibrous and irregularly creased.

Natural Resources Canada, 2002, Conifers, Retrieved 27 March 2007, from http://www.cfl.scf.rncan.gc.ca/imfec-idecf/hosttrees/conifers/cedar.html

Figure 11-12-19 Cedar Bark

Fir Bark. Fir bark is usually covered with resin blisters. The bark generally resembles scaly plates.

Bioimages, Copyright 2002 by Bioimages. Retrieved 27 March 2007, from http://www.cas.vanderbilt.edu/bioimages/image/a/abfr--br11426.htm

Figure 11-12-20 Fir Bark

Hemlock Bark. Dark brown to reddish-brown, becoming thick and strongly grooved with age.

Ministry of Forest and Range – Government of British Columbia, 2001, Tree Book Western Hemlock, Copyright 2001 for the Province of British Columbia. Retrieved 30 March 2007, from http://www.for.gov.bc.ca/hfd/librarydocuments/treebook/westernhemlock.htm

Figure 11-12-21 Hemlock Bark

Larch Bark. Mature trees develop a thick, grooved plate-like bark with cinnamon-coloured scales.

Ministry of Forest and Range – Government of British Columbia, 2001, Tree Book Western Larch, Copyright 2001 for the Province of British Columbia. Retrieved 30 March 2007, from http://www.for.gov.bc.ca/hfd/librarydocuments/treebook/westernlarch.htm

Figure 11-12-22 Western Larch Bark

Pine Bark. Pine bark is usually thin, smooth, and chalky-white on young stems; as the tree gets older, the bark becomes thicker and forms narrow, brown, scaly plates.

Bioimages, Copyright 2002 by Bioimages. Retrieved 27 March 2007, http:// www.cas.vanderbilt.edu/bioimages/image/p/pivi2-brmedium13509.htm

Figure 11-12-23 Pine Bark

Spruce Bark. Spruce bark is usually loose, scaly, and greyish-brown. It may have resin blisters.

St. Mary's School, 2003, Mrs. Zvonar's Tree Page, Copyright 2003 for St. Mary's School. Retrieved 27 March 2007, from http://www.stmarysschool.net/whitesprucetree_cb.html

Figure 11-12-24 Spruce Bark

Tamarack Bark. Tamarack bark is usually red-brown, thin, and scaly.

Ministry of Forest and Range – Government of British Columbia, 2001, Tree Book Tamarack, Copyright 2001 for the Province of British Columbia. Retrieved 30 March 2007, from http://www.for.gov.bc.ca/hfd/librarydocuments/treebook/tamarack.htm

Figure 11-12-25 Tamarack Bark

USAGE

Twenty-three species of coniferous trees are used commercially. Conifers are mainly used for paper production and timber. They can also be used for:

- floors;
- mouldings; and
- bookcases.

FIREWOOD

Softwood makes a hot and fast burning fire; unfortunately, it does not last long.

Spruce is a poor fuel but it makes a good blaze for building up a fire.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. Why are coniferous trees called evergreens?

Q2. Name the two types of needles on coniferous trees.

Q3. Name two of the most common coniferous trees in Canada.

ANTICIPATED ANSWERS

A1. They do not shed there leaves in the winter.

A2. Simple and clustered.

A3. Cedar, fir, hemlock, larch, pine, spruce and tamarack.

Teaching Point 3 **Conduct an Identification Activity**

Time: 10 min Method: Practical Activity

If an outside area with trees is not available, conduct the second activity in this TP.

ACTIVITY (OUTDOORS)

OBJECTIVE

The objective of this activity is for the cadets to identify at least one deciduous and one coniferous tree.

RESOURCES

- Bright-coloured tape; and
- Answer sheet located at Annex F.

ACTIVITY LAYOUT

Prior to the lesson, identify an area containing as many types of trees as possible. The four trees to identify should be marked with bright-coloured tape.

ACTIVITY INSTRUCTIONS

1. Have the cadets step outside the building and gather at the pre-determined area.
2. Outline safety rules.
3. Distribute the answer sheet located at Annex F.
4. Cadets should walk around the area and identify, on their answer sheet, the marked trees.
5. After five minutes, have the cadets gather around and review their answers.

SAFETY

Brief the cadets on any safety rules or boundaries pertaining to the outside activity.

ACTIVITY (INDOORS)

OBJECTIVE

The objective of this activity is for the cadets to identify at least one deciduous and one coniferous tree.

RESOURCES

- Tape;
- Answer sheet located at Annex F; and

- Pictures of trees located at Annex G.

ACTIVITY LAYOUT

Pictures of five different trees (located at Annex G) should be posted around the classroom.

ACTIVITY INSTRUCTIONS

1. Distribute the answer sheet located at Annex F.
2. Have the cadets walk around the room and identify the trees on the pictures.
3. After five minutes, have the cadets gather around and review their answers.

The five different trees in Annex G are:

- Species A – birch;
- Species B – hickory;
- Species C – oak;
- Species D – cedar;
- Species E – larch; and
- Species F – spruce.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 3

The cadet's participation in the activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

QUESTIONS

Q1. Name four of the most common deciduous trees in Canada.

Q2. What type of coniferous tree has overlapping scales?

Q3. Name four of the most common coniferous trees in Canada.

ANTICIPATED ANSWERS

A1. Alder, beech, birch, chestnut, elm, hickory, maple and oak.

A2. Cedar.

A3. Cedar, fir, hemlock, larch, pine, spruce and tamarack.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Being familiar with the surrounding environment is essential to expeditions and weekend bivouac FTX. This knowledge will provide a better understanding of the species of trees needed for skills such as fire building or constructing field amenities.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

C0-117 (ISBN 1-58238-092-9) Brockman F.C. (2001). *Trees of North America: A Guide to Field Identification*. New York, USA: St. Martin's Press.

C0-137 Natural Resources Canada. (2002). *Provincial Trees*. Retrieved 22 March 2007, from http:// www.cfl.scf.rncan.gc.ca/imfec-idecf/hosttrees/provincialtrees.html.

C2-004 (ISBN 1-896713-00-9) Tawrell, P. (1996). *Camping and Wilderness Survival: The Ultimate Outdoors Book*. Green Valley, ON: Paul Tawrell.

C2-016 (ISBN 0-517-88783-5) Curtis, R. (1998). *The Backpacker's Field Manual: A Comprehensive Guide to Mastering Backcountry Skills*. New York, NY: Three Rivers Press.

C2-068 (ISBN 0-425-10572-5) Brown, T., Jr., and Morgan B. (1983). *Tom Brown's Field Guide: Wilderness Survival*. New York, NY: The Berkley Publishing Group.

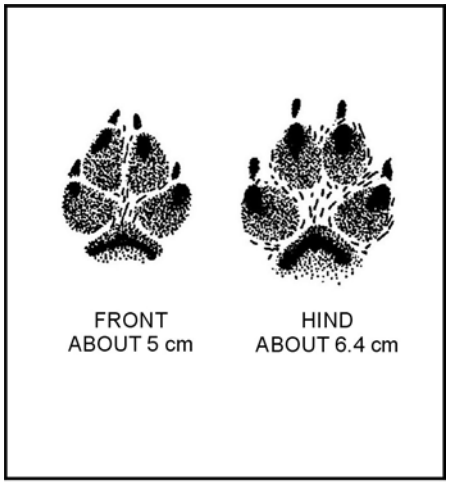
PROVINCIAL/TERRITORIAL WILDLIFE

THE RED FOX

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 131)

RED FOX LOCATIONS

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 130)



RED FOX TRACKS

Canadian Wildlife Service & Canadian Wildlife Federation, 2003, Hinterland Who's Who - Mammal Fact Sheets. Retrieved 26 February 2007, from http://www.hww.ca/hww2p.asp?id=102&cid=0

The red fox is a small, dog-like mammal, with a sharp pointed face and ears. It has a lightly built body, a coat of lustrous long fur, and a large bushy tail. Generally, male foxes are bigger than females. Adult foxes weigh between 3.6 and 6.8 kg and are normally between 90 and 112 cm in length. Size varies between individuals and geographic locations—those in the north are normally bigger.

The colour of the coat of a red fox is normally a variation of reddish brown, but can be silver, black, or even have a black cross on the back. The lower legs and feet of the red fox are usually blackish, and the tail has a white tip.

Red foxes are Canada's most widespread mammal. They are found in all provinces and territories. Foxes are normally found in areas where there is a mix of open field and wooded or brushy country; however, they can also survive easily in a city.

A fox is both a hunter and a scavenger. Their diet consists of rodents, rabbits, birds, insects, fruit, earthworms, reptiles, and carrion (dead flesh). Wolves, coyotes, and dogs will chase and sometimes kill foxes when the opportunity presents itself.

Humans hunt foxes for their fur. Hunting and trapping are not authorized during the season when young are being raised. Hunting season occurs in early winter when the fur is good quality for trapping. Nuisance foxes are often destroyed on a local basis.

Rabies is a contagious and fatal viral disease that is transferred through the saliva of the affected animal to a human. It causes madness and convulsions. Foxes have occasionally become a menace to public health, especially in rural areas, when epidemics of rabies sweep through wild mammal populations. Once symptoms are confirmed, rabid foxes should be avoided. When rabid, the normally shy foxes show no fear of people and are often seen in daylight. In advanced stages of the disease, they may foam at the mouth.

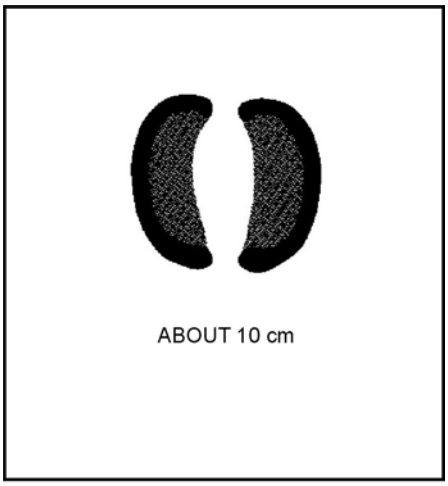
Figure 11A-1 The Red Fox

THE CARIBOU

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 159)

CARIBOU LOCATIONS

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 158)



CARIBOU TRACK

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 158)

The caribou is a member of the deer family. They are very tough and able to survive year-round in harsh climates. Their short, stocky bodies conserve heat, their long legs help them move through snow, and their long dense winter coats provide effective insulation, even during periods of low temperature and high wind.

Caribou normally have dark faces and noses, light cream-coloured necks, and blackish legs. Size and colour will vary with location. The Southern Woodland Caribou is the largest and darkest; Peary's Caribou of the high Arctic islands is the smallest and palest. Colour will also vary with season. Caribou will be dark and brown in summer, and pale and grey in the winter. Unlike other deer, both males and females have antlers. Their antlers shed annually. Bulls (males) lose theirs shortly after the fall and cows (females) keep theirs until calving in the spring. Female antlers have a fuzzy covering, called velvet, which contains blood vessels that carry nutrients for growth.

Caribou dwell in a variety of places such as forests, mountains, and tundra. In summer, caribou feed on a wide variety of plant material, including grasses, shrubs, sedges, twigs, and mushrooms. In winter, they feed mainly on lichens.

When the caribou is in danger, it rears up on its hind legs and deposits a scent that alerts other caribou to the threat.

It is believed that the caribou's name was derived from the Mi'kmaq word "xalibu" which means "the one who paws", mainly because they have very versatile hooves. In the winter, their hooves grow to an incredible length, giving them firm footing on crusty snow. In the summer, their hooves are worn away by travel over hard ground and rocks. They function as efficient scoops in the snow when trying to uncover lichens. Caribou are also excellent swimmers and their hooves function well as paddles.

There are four subspecies of caribou in Canada: woodland, Peary, barren-ground west of the Mackenzie River (also known as Grant's caribou), and barren-ground east of the Mackenzie River. The Mackenzie River is located in the Northwest Territories, and it flows into the Arctic Ocean.

Figure 11A-2 The Caribou

THE WHITE-TAILED DEER

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 151)

WHITE-TAILED DEER LOCATIONS

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 150)

WHITE-TAILED DEER TRACK

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 150)

The white-tailed deer is very well known in Canada. It is recognized by its habit of flourishing its tails over its back, revealing a stark white underside and white buttocks. The tail has a broad base and is about 30 cm long. When lowered, it is brown with a white fringe. In summer, the white-tailed deer has reddish fur on the back and sides and is white beneath; in winter, the upper parts turn greyish. Full grown white-tailed deer typically exceed one metre at shoulder height and weight about 110 kg (245 lbs); however, those in northern regions can weigh up to 200 kg (440 lbs).

The antlers of a mature white-tailed deer curve forward and have single points that project upward and often slightly inward. Males grow new antlers each year. One of every 1000 females bear small, simple antlers. Occasionally, white-tailed deer will get their antlers hopelessly entangled with those of another male during a mating season battle, resulting in the slow death of both animals.

White-tailed deer can be found in open forests bordering fields and natural meadows. They are browsers and grazers, feeding on a wide variety of plant materials, from twigs and leaves to grasses, berries, acorns, and fungi. At times, white-tailed deer will eat row crops and garden plants.

When alarmed, the deer leaps (its hind feet hitting the ground before its front feet), flags its tail, and shows the bright white underside.

Deer reproduce quickly. A healthy herd is capable of almost doubling its numbers during one good year. Although a series of severe winters may tend to reduce the range of the white-tailed deer, a few positive years allow it to reoccupy the lost ground, rebuild populations, and even extend range further northward.

Deer in Canada are relatively free of serious diseases or parasites. Typically, their natural predators are the wolf, coyote, and bobcat. These predators have been greatly reduced in number and only occasionally exert significant pressure on the white-tailed deer. Free-roaming dogs sometimes take a heavy toll on deer of all ages; particularly in late winter when crusted snow aids dogs but hinders weakened deer. Deer may have difficulty surviving in the winter, especially if there are too many competing for food, or if the snow is deep.

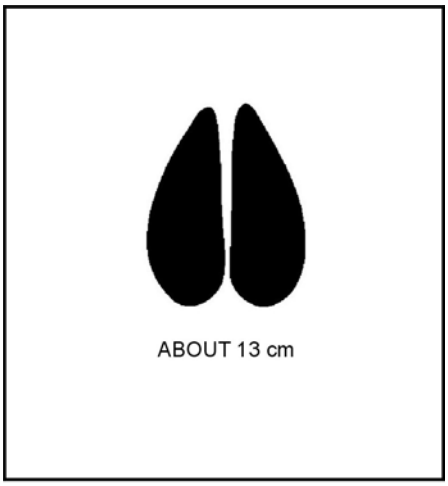
Figure 11A-3 The White-tailed Deer

THE MOOSE

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 155)

MOOSE LOCATIONS

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 154)



MOOSE TRACK

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 154)

Moose have long, slim legs. Their bodies have massive muscles at the shoulders, giving them a humped appearance. The head is heavy and compact, and the nose extends in a long, mournful-looking arch. Most moose have a pendant of fur-covered skin that hangs about 30 cm long from the throat, commonly referred to as a bell. Their colour varies from dark brown, almost black, to reddish or greyish brown, with grey or white legs. Big bulls (males) weigh up to 600 kg (1320 lbs) in most of Canada; however, the subspecies found in the Yukon territory can weigh as much as 800 kg (1760 lbs). Moose have a great appetite and will consume up to 20 kg (45 lbs) of food per day. Their preferred food includes aquatic plants in the summer, twigs and woody stems in the winter, willow, and aspen leaves. The eyesight of the moose is extremely poor; however, they have great senses of smell and hearing.

Like other members of the deer family, moose normally shed their antlers. Most moose will lose them in November, but some younger bulls may carry them until April. Their antlers can span up to 150 cm. Moose antlers have a broad flattening throughout and are pale, sometimes white.

Moose can tolerate cold weather well, but suffer in the heat because they cannot perspire. During summer, moose can be found in marshy and watered areas, trying to cool off. Moose are excellent divers and swimmers, as are their young.

Despite their huge size, adult moose are sometimes taken by predators such as wolves, black bears, and grizzly bears. Wolves and bears try to catch calves, but the mother moose can often successfully defend by striking out powerfully with her hooves. People should always avoid females with calves.

Ticks are common on moose, especially in late winter. Moose are significantly weakened because the ticks suck blood which causes them to rub off their hair, and hence causes heat loss. When food is lacking, moose may develop a parasitic tapeworm called hydatid.

Moose have adapted well to human activities and are an important economic resource in Canada. Moose hunting generates over $500 million annually in economic activity. With continued management, they should always be part of Canadian culture.

Figure 11A-4 The Moose

THE SKUNK

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 105)

SKUNK LOCATIONS

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 104)

SKUNK TRACK

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 104)

The striped skunk is about the size of a cat. It has a stout body, a small head, short legs, and a bushy tail. The thick, glossy fur is black, with a thin white stripe down the centre of its face and a broad white stripe beginning on the back of the head. The tail is mostly black, and the stripes may extend down it, usually to a clump of white at the tip.

The striped skunk has long, straight claws for digging out burrows of mice, ripping apart old logs for grubs and larvae, and digging in the sand for turtle eggs. It moves slowly and relies on its scent glands for safety.

The striped skunk is a useful small mammal that inhabits farmlands, grasslands, and forests. They generally live in the abandoned dens of woodchucks, foxes, or other mammals of similar or larger size and will occasionally make their own dens. Skunks can also be found in stumps, rock piles, or refuse heaps. If a skunk digs its own den, it will be simple. A skunk will gather leaves by placing them under its body and then shuffle along to the den with the leaves between its legs as it moves. They are normally seen late afternoon and through the night.

A striped skunk diet consists of insects, mice, shrews, ground squirrels, young rabbits, birds' eggs, and a variety of plants. They are an important predator on insect pests. It is preyed upon by bobcats and large birds. Motorists are also a great hazard to the skunk. Like porcupines, they are overly confident of their defence mechanism and often pay heavily for their manners when crossing highways.

Skunks belong to the weasel family, all of whose members have well-developed scent glands and a musky odour. The striped skunk will spray a bad smelling fluid to defend itself. This spray can travel as far as six metres, and the smell is strong enough to be carried almost one kilometre in the wind. The scent is produced by a thick, yellow, oily fluid, secreted by two glands located on each side of the anus. The glands are about the size of a grape and contain about a tablespoon of musk. They are connected by tubes to two small nipples that are hidden when the tail is down, and exposed when the tail is raised. The musk is normally discharged as a last measure after repeated warning signs. They will usually try to retreat from a human or large enemy. An angry skunk will growl or hiss, and stamp its front feet rapidly. They may even walk a short distance on its front feet with its tail high in the air. The striped skunk cannot spray from this position. To perform this defence, the skunk usually humps its back and turns in a U-shaped position so that both the head and the tail face the enemy.

Figure 11A-5 The Striped Skunk

THE RACCOON

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 99)

RACCOON LOCATIONS

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 98)

RACCOON TRACKS

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 98)

Raccoons are well-known for their mischievous-looking black face mask. They are normally greyish in colour with a tail marked by five to ten alternating black and brown rings. Body colouration varies from albino (white), to black or brown. Raccoons begin to shed their fur in the spring, which lasts for about three months. Their head is broad, with a pointed snout. Their short rounded ears measure about four to six centimetres. Raccoons have black eyes. The body and tail length for adults averages about 80 cm; males are generally larger than females. Size varies with climate.

Raccoons are able to live in a wide range of habitats. They can be found in hardwood swamps, forests, marshes, farmlands, and even in cities. They always favour the vicinity of water and trees and are plentiful in wooded swamps.

Raccoons will consume practically any food item, plant or animal. They like corn, crayfish, nuts, and fruits, but there is a seasonal shift in diet depending on availability of food items. They are a familiar “masked bandit”, and have been long known to raid garbage cans and garden plots at night.

The name raccoon is derived from the Algonquian word arakun, meaning “he scratches with his hand“. They use their front feet like hands to manipulate food items and are famed for appearing to “wash” their food before eating it.

Since the raccoon can be easily tamed when young, many people have had their lives enriched by a close association with this intelligent, inquisitive animal. Males, however, may become aggressive as they mature and usually end up being returned to the wild. The raccoon is one of the few creatures that are capable of making the adjustment from family pet back to wild animal.

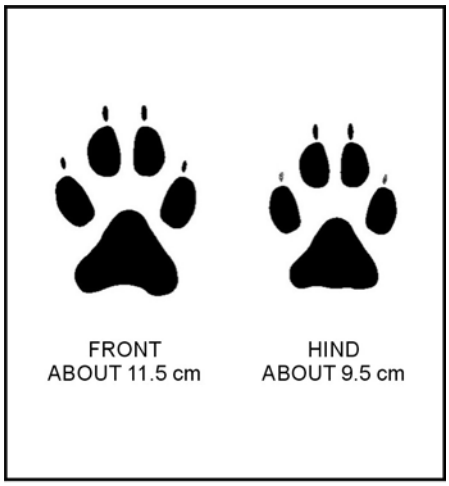
Figure 11A-6 The Raccoon

THE GRAY WOLF

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 127)

GRAY WOLF LOCATIONS

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 126)



GRAY WOLF TRACKS

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 126)

Wolves, also known as gray wolves, vary in colour. They are often grey-brown, but can also be black, white, or reddish. They have long bushy tails. Their colour variation is a good example of natural selection; since those found in the north are normally white and those found in forests will normally have greyish, greenish, and brownish coats. Wolves look a lot like a German Sheppard, but they have a narrower chest, longer legs, and bigger feet. When running, wolves carry their tails straight out behind them.

Wolves have a highly organized social structure that centres on a dominant male and a dominant female. A dominant wolf will hold its tail high and stand stiff-legged. They are very territorial.

Gray wolves live in packs of five to ten which normally consist of a breeding pair, their young from recent years, and sometimes unrelated wolves. All pack members cooperate in hunting and sharing kills. They travel great distances over home ranges. When hunting, they can put on bursts of speed up to 70 kilometres per hour. In addition to preying hoofed animals such as moose or bison, they take hares, beavers, and many smaller creatures. Wolves communicate, and maintain distance from other packs, by howling.

The main prey of wolves are large mammals such as deer, moose, caribou, and elk. Wolves also eat a variety of smaller mammals and birds, but these rarely make up more than a small part of their diet. Wolves work hard for their food. Studies show that they kill only about one large mammal for every 10 chased. In winter, they usually kill old and young animals. When prey numbers decline, the entire pack of wolves will prey on all age groups. In summer, much of the wolves' diet consists of young animals born that year, because they are the easiest to catch.

The wolf was once a much criticized animal. In popular children's tales like *Little Red Riding Hood* and *The Boy Who Cried Wolf*, the wolf is made out to be a raider and a killer of livestock and people. There are no records of wolves killing humans in Canada or the United States. Today, many people know that scientists studying wolves have lived very close to dens where there were pups without being attacked. In areas where wolves are hunted or trapped, they fear people and are very wary. However, in remote places, such as the Canadian Arctic, they show little fear and will often allow people to live near them.

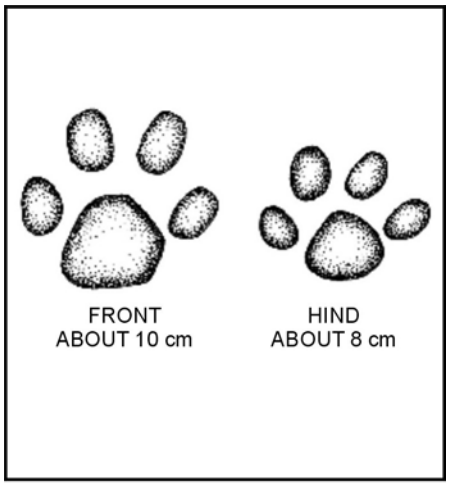
Figure 11A-7 The Gray Wolf

THE CANADIAN LYNX

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 139)

CANADIAN LYNX LOCATIONS

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 138)



CANADIAN LYNX TRACKS

Minnesota Trappers Association, Mike Stutz, 2007, Minnesota Trappers Association - Canadian Lynx. Retrieved 12 March 2007, from http://www.mntrappers.com/lynx.html

The Canadian lynx resembles a very large domestic cat. It has a short tail, long legs, large feet, and prominent ear tufts. Its winter coat is light grey and slightly speckled with long guard hairs; the under fur is brownish, and the ear tufts and the tip of the tail are black. The summer coat is much shorter than the winter coat and has a reddish brown cast.

Its large feet, which are covered during the winter by a dense growth of coarse hair, help the lynx travel over snow. The Canadian lynx can spread its toes in soft snow, expanding its “snowshoes”. The lynx has large eyes and ears and relies on its acute sight and hearing when hunting. The lynx’s claws, like those of most other cats, are retractable and used primarily for catching prey and fighting.

The lynx makes a variety of sounds, like those made by house cats, but louder.

The Canadian lynx generally lives in forested wilderness areas. It prefers old growth boreal forests with dense undercover of wood and windfalls. However, it will populate other types of habitat as long as they contain some forest cover and adequate numbers of prey, in particular snowshoe hares.

As long as they are not disturbed, lynx are remarkably tolerant of human settlement. Like the cougar and bobcat, the Canadian lynx tends to be secretive, active at night and rarely seen.

The lynx preys almost exclusively on the snowshoe hare. Since snowshoe hare populations follow a 10 year cycle, lynx numbers dramatically vary, building to a peak as hare populations increase, and then crashing. Their supplement diet consists of grouse, voles, mice, squirrels, and foxes. They may also supplement their diet with carrion or dead flesh from big game such as deer.

The Canadian lynx normally hunts alone and during the night. A lynx can jump as far as 6.5 m, which equals about four hops for a hare.

Figure 11A-8 The Canadian Lynx

THE BLACK BEAR

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 143)

BLACK BEAR LOCATIONS

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 142)

BLACK BEAR TRACKS

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 142)

The black bear is a heavy, bulky, thickset mammal. It is normally about 150 cm long and varies in height from 100 to 120 cm. An adult bear has a moderate-sized head, a straight facial profile, and a tapered nose with long nostrils. The black bear has flexible lips, which are free from its gums, and a long tongue, which helps it gather tiny food items such as blueberries and ants. Their ears are rounded and their eyes are small. The tail is short and not easily seen. An average adult male weighs about 180 kg (400 lbs), whereas an average adult female weighs about 100 kg (220 lbs).

Despite its name, the black bear varies in colour. In eastern Canada, black bears are normally all black with a brown muzzle (front portion of the face). In western Canada, they can be seen as black, brown, cinnamon, or blond. Generally, cubs in a litter will be the same colour as their mother.

The black bear can be found in a variety of habitats, but it prefers heavily wooded areas and dense bush land. They are capable of travelling great distances and have been found 80 km or more from their homes.

The black bear will eat pretty much anything. Most of their food is plants, especially in the late summer and autumn when berries and nuts are available. In the spring, some bears may prey upon newborn moose calves, deer fawns, caribou calves, or elk calves. Bears drink frequently and are more often than not found near water.

The activity pattern of black bears varies from area to area depending on a number of factors, including human interaction. They are generally active from dawn until dark. Bears have been known to have human contact.

Biologists believe that trees repeatedly clawed and marked by bears serve as a form of communication. Adult males use these trees frequently, presumably to announce their presence to potential mates or rivals. Black bears appear awkward as the shuffle along, but can run as fast as 50 kilometres per hour if necessary. They are good swimmers and frequently cross rivers and small lakes. They climb very well with a series of quick bounds, grasping the tree with their forepaws and pushing with their hind legs. They can fall from a tree of heights up to about 4.5 m and appear unshaken.

The black bear has poor eyesight, but its senses of hearing and smell are very well developed. Under good atmospheric conditions, bears can detect carrion, or flesh of dead animals, which they scavenge.

Figure 11A-9 The Black Bear

THE GRIZZLY BEAR

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 145)

GRIZZLY BEAR LOCATIONS

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 144)

GRIZZLY BEAR TRACKS

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 144)

The grizzly bear (also known as the brown bear) is the second largest North American land carnivore, or meat-eater. It has a prominent hump over the shoulders, formed by the muscles of its massive forelegs. The grizzly has a curved-in face and extremely long front claws. Its colour ranges from nearly white or ivory to yellow or black. Generally, grizzlies have light or greyish fur on the head and shoulders, a dark body, and even darker feet and legs. An average adult male weighs between 270-360 kg (600-800 lbs) whereas an average adult female weighs about 135 kg (300 lbs).

The grizzly is a solitary animal. Its home range varies in size but is usually 200 to 600 km^2 for females and 900 to 1800 km^2 for males. Generally, the more plentiful the food supply, the smaller the home range. Scientific devices have shown that male grizzlies sometimes travel as far as 250 km, as the crow flies, over the course of a year. They have also shown that bears that have been relocated after becoming addicted to garbage will return from distances of more than 100 km to a dump where they have previously learned to feed.

Although they are considered to be meat-eaters, grizzlies are generally omnivores – they eat a wide range of foods. Plants make up 80 to 90 percent of its diet. Grizzlies prey on mammals and migrating salmon, where they are available, but on the whole rely on plants for food.

Unlike black bears, grizzly bears have not adapted well in the face of civilization. Their keen sense of personal space and their occasional depredation of crops and livestock have brought this proud animal into conflict with people, inevitably to the grizzlies' loss. Today, their total range in North America has shrunk by more than half, while the black bear has held its own.

A grizzly seldom looks for trouble. Its size allows it to avoid fights with other animals and, if at all possible, a grizzly will avoid contact with people. The grizzly is not as persistent around garbage dumps as the black bear, but occasionally its taste for garbage will give rise to trouble. If surprised at close range, a grizzly can ferociously defend itself, its young, and its territory.

The grizzly is a true wilderness animal and can only survive in relatively undisturbed areas. People are the biggest threat to the grizzly. It suffers the greatest impact not from hunting, but from the continual increase of our population and the resulting deterioration of grizzly habitat.

Figure 11A-10 The Grizzly Bear

THE POLAR BEAR

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 147)

POLAR BEAR LOCATIONS

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 146)

POLAR BEAR TRACKS

National Wildlife Federation, 2005, eNature - Polar Bear. Retrieved 22 March 2007, from http://www.enature.com/fieldguides/detail.asp?shapeID=1026&curGroupID=5&lgfromWhere=&curPageNum=4&viewType=tracks

The polar bear is the largest land carnivore, or meat eater. The white coat of a polar bear will often appear cream or yellow against arctic ice. Adult males measure from 240 to 260 cm in total length and usually weigh from 400 to 600 kg (880 to 1320 lbs); however, they can weigh as much as 800 kg (1760 lbs) – about the weight of a small car. Adult females are about half the size of males. The polar bear has a long body, neck, and skull. They have large canine teeth and the grinding surfaces of their cheek teeth are jagged, which is an adaptation of a carnivorous diet. Polar bear claws are brownish in colour, short, fairly straight, sharply pointed, and non-retractable.

Polar bears prefer areas of ice, which they use for a hunting platform and protective cover, combined with snow drifts, refrozen cracks, and areas of open water surrounded by ice. This habitat preference is closely linked to the presence of their favourite food, ringed seals. They are superbly adapted to their arctic surroundings. Their thick winter coats, with glossy guard hairs and dense under fur, and the thick layer of fat beneath the skin protect them against the cold. Guard hairs shed water easily, so after a swim the polar bear can shake itself off like a dog to decrease chilling and speed the drying process. The white colour of the polar bear also serves as camouflage.

The bears' normal pace is a slow, lumbering walk of about 5 to 6 km per hour. They may gallop when chased, but they do not run for long periods of time. When hunting, polar bears rely mainly on their sense of smell. They can detect seal breathing holes covered by layers of ice and snow 90 cm or more thick and up to a kilometre away. Polar bears are excellent swimmers, using their large front paws as powerful oars, while their rear paws trail behind and act like rudders. Underwater, they keep their eyes open. A polar bear may remain below the surface for over a minute.

Polar bears will usually not attack humans except to protect their cubs or because they are starving.

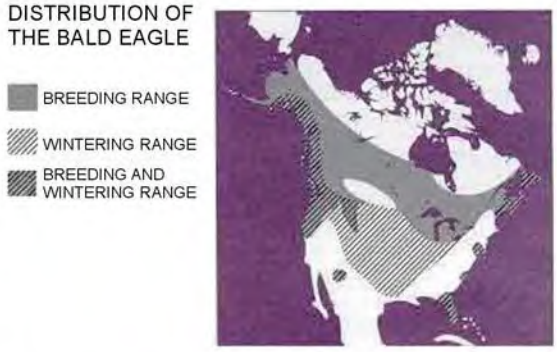
Although polar bears are not in immediate danger of extinction, they face threats common to all large predators: human violation on their habitat, illegal hunting, and chemical contaminants in their prey. A new threat appears to be global warming or climate change, which is affecting the polar bear's habitat by reducing the total ice cover in the Arctic, thinning the permanent pack of ice of the central polar basin, and changing the timing of freeze-up and break-up in more southerly areas, such as Hudson Bay.

The polar bear has been designated as a species of special concern in Canada because of characteristics that make it particularly sensitive to human activities and natural events.

Figure 11A-11 The Polar Bear

THE BALD EAGLE

Canadian Wildlife Service & Canadian Wildlife Federation, 2003, Hinterland Who's Who - Bird Fact Sheets. Retrieved 26 February 2007, from http://www.hww.ca/hww2p.asp?id=27&cid=0



BALD EAGLE LOCATIONS

Canadian Wildlife Service & Canadian Wildlife Federation, 2003, Hinterland Who's Who - Bird Fact Sheets. Retrieved 26 February 2007, from http://www.hww.ca/hww2p.asp?id=27&cid=0

The bald eagle is Canada's largest bird of prey. One of 59 species of eagles in the world, the bald eagle is one of two eagles in North America (the other is the Golden Eagle). It is the only eagle found exclusively in North America.

Bald eagles are enormous birds. They have a wing span of about two metres. When perched, a fully grown bald eagle measures about 76 cm tall. It is not uncommon for a bald eagle to weigh over seven kilograms. On average, females are larger than males and juveniles are larger but lighter in weight than adults of the same sex. Adults have a dark brown (almost black) body that contrasts sharply with the white feathers on the head and tail, and the yellow beak, eyes, and legs. It takes a young bald eagle four or five years to achieve this distinct colouration.

Bald eagles can see three or four times farther than most people, which is a huge advantage to a bird that hunts and scavenges. They have a sufficient sense of hearing but their senses of taste and smell are poorly developed.

Bald eagles feed primarily on fish, aquatic birds, and mammals, which they may take alive or find dead. The majority of live food consumed consists of the sick or those wounded by hunters. To kill and handle prey, bald eagles have massive beaks, large talons, and oversized feet equipped with small spikes, called spicules. They take food any way they can, stealing from other birds, scavenging on dead flesh, and hunting in flight, from a perch, on the ground, or in shallow water. They will sometimes feed in groups, but rarely cooperate when hunting. Generally, adults are likely to hunt and kill, whereas younger birds rely on scavenging and stealing.

Canadian bald eagle populations are currently relatively stable, although the situation varies regionally. Currently, populations in coastal British Columbia, the boreal forest, and the Atlantic provinces are doing well. Local populations in southern Ontario and New Brunswick, as well as the lower 48 states of the United States, are endangered.

If mortality rates continue to be high, population growth will be slow. However, if suitable habitats remain available and human disturbance is kept to a minimum, the magnificent soaring bird will be enjoyed for many years to come.

Figure 11A-12 The Bald Eagle

THE COUGAR

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 137)

COUGAR LOCATIONS

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 136)

COUGAR TRACK

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 136)

In Canada, cougar, mountain lion, puma, and panther are all the same species. Like all cats, the cougar has a muscular, deep-chested body, with a round and short head. Its whiskers are well developed and its eyes are large. The most distinctive feature of the cougar is its long tail, which is useful for balance.

Cougars vary considerably in size and weight throughout their range. Adult cougars weigh about 1.4 times more than females. An average weight for a male cougar is about 70 kg (155 lbs); and about 40 kg (88 lbs) for a female. Colours range from reddish orange or orange grey to dark chocolate brown. Cougars have black on the tips of their ears and tails, and black markings on their faces. A kitten cougar will be spotted at birth, but the spots will disappear before their first birthday. Cougars have very strong necks and muscular jaws with long canine teeth.

Cougars live in a wide range of vegetation. Cover, in the form of vegetation and irregular landscape is important to cougars. Even where their home ranges overlap, cougars avoid each other. Adults of both sexes travel alone, except when mating or when females are accompanied by their kittens. Because cougars reside at the top of the food chain, healthy cougar populations are good indicators of healthy and balanced ecosystems.

Like all cats, cougars hunt more by sight and hearing than by scent. They stalk their prey to within two or three great leaps and then launch a lightening-fast charge that ends with the cougar striking the prey with full impact of the charge and bearing it to the ground. Cougars hunt deer, elk, and moose calves. They will also hunt small mammals such as porcupines, beavers, coyotes, snowshoe hares, ground squirrels, and birds. Cougars typically kill their own food. Scavenging or eating dead animals is rare.

In places where cougar hunting is allowed, it is the most common cause of death. Since cougars frequently kill prey larger than themselves, they are continually exposed to the risk of serious injuries, which eventually take their toll. The cougar has virtually disappeared in the east. Fortunately, sufficient wilderness remained in the west and enabled the cougar to survive.

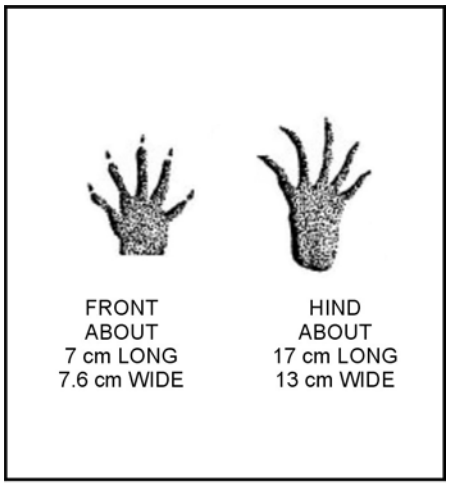
Figure 11A-13 The Cougar

THE BEAVER

Canadian Wildlife Service & Canadian Wildlife Federation, 2003, Hinterland Who's Who - Mammal Fact Sheets. Retrieved 25 April 2007, from http:// www.hww.ca/hww2p.asp?id=102&cid=0

BEAVER LOCATIONS

Canadian Wildlife Service & Canadian Wildlife Federation, 2003, Hinterland Who's Who - Mammal Fact Sheets. Retrieved 25 April 2007, from http:// www.hww.ca/hww2p.asp?id=102&cid=0



BEAVER TRACKS

Canadian Wildlife Service & Canadian Wildlife Federation, 2003, Hinterland Who's Who - Mammal Fact Sheets. Retrieved 25 April 2007, from http:// www.hww.ca/hww2p.asp?id=102&cid=0

The beaver is the largest rodent in North America. An adult beaver has a tail that is approximately 30 cm long, will weigh 16 to 32 kg (35 to 70 lbs) and can measure up to 1.3 m long. The beaver is normally brown and very round and compact. It is very slow on land but an excellent swimmer. It can swim about 7 km per hour if it is alarmed. The beaver has very large hind feet, which help it swim. It can use its paws to carry sticks, stones and mud. Their paws are also a great help in construction.

The beaver is commonly found in forested areas where water is present or nearby. It spends the majority of its life logging. One beaver will cut down an average of 216 trees a year. It can cut a tree 40 cm in diameter! A single beaver will usually cut one tree, but sometimes two will work on a large one. In the winter, the beaver's main diet is sticks. It will shift from a wood to a herbivore diet when spring arrives and new growth appears. In the summer, the beaver will eat grasses, herbs, leaves of woody plants, fruits and aquatic plants.

The beaver is a superb builder. Its best-known structure, the dam, is only built by beavers that need to enlarge their underwater habitat that will be open to them in the winter. The dam creates a deep pond that will not freeze to the bottom, which provides storage for winter food and year-round underwater access secure from predators.

The beaver's tail has important uses both in the water and on land. It may be 30 cm long, up to 18 cm wide and 4 cm thick. It is covered with leathery scales and coarse hairs and is very muscular. The beaver uses its tail as a rudder in the water. It also serves as a counterbalance and support when it is walking on its hind legs while carrying building materials like mud, stones, or branches with its front paws.

The beaver falls prey to wolves, coyotes, bears, lynx and wolverines when looking for food on the shore or travelling over land.

The beaver has had a great influence on Canada's history. Canadians now celebrate the beaver as a national symbol on stamps, coins and emblems. There are also hundreds of Canadian lakes, towns, rivers and hill ranges that bear the name of this great rodent.

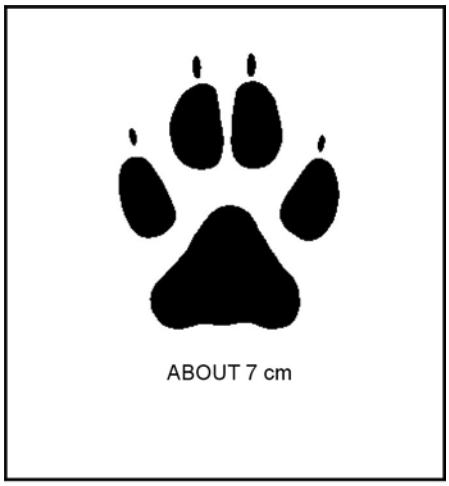
Figure 11A-14 The Beaver

THE COYOTE

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 129)

COYOTE LOCATIONS

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 128)



COYOTE TRACK

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 128)

The coyote is slimmer and smaller than the wolf. The male usually weighs 20–50 lbs (9–23 kg), has an overall length of 120–150 cm (with a 30–40 cm tail), and stands 58–66 cm high at the shoulder. The female is usually slightly smaller. The coyote can vary in colour, from grey to reddish brown and their ears are wide, pointed, and erect. It has a tapering muzzle and a black nose. Unlike most dogs, the top of the muzzle on the coyote almost form a continuous line with the forehead. The coyote has yellow, slightly slanted eyes with black round pupils.

The coyote lives in a variety of habitats. It was originally only found in the prairie provinces, however has since expanded north to the boreal forest, west to the mountains and east to the Atlantic provinces. Coyotes have been recently discovered in western Newfoundland, apparently having crossed on ice from Nova Scotia. The coyote varies in social behaviour. It may live in pairs or in packs. The coyote is very adaptable and is equally comfortable living in city suburbs as in natural areas.

The coyote is primarily a flesh-eater but will eat just about anything available. A coyote will eat deer, sheep, rabbits, hares, rodents, insects, blueberries and other wild fruit. Where coyotes and wolves co-exist, coyotes scavenge from wolf kills. Small prey is usually hunted by one single coyote, but large prey are normally hunted in a group.

Like the wolf, the coyote's best known trait is its yelping and howling cry, which is a sequence of high-pitched, ear-piercing howls. Their howls are a form of communication. The coyote can also bark, growl, wail and squeal. The coyote is often silent in the daytime and can be heard any time from sunset to sunrise. The howling of one coyote will normally trigger the howling of others. Two howling in unison can create the illusion of a dozen or more.

The coyote has a fantastic sense of smell and hearing. A sudden noise or odour can make it change course in mid-step.

Coyotes are known to have interbred with wolves and with domestic dogs. These hybrid "coydogs" are sometimes seen, especially near cities.

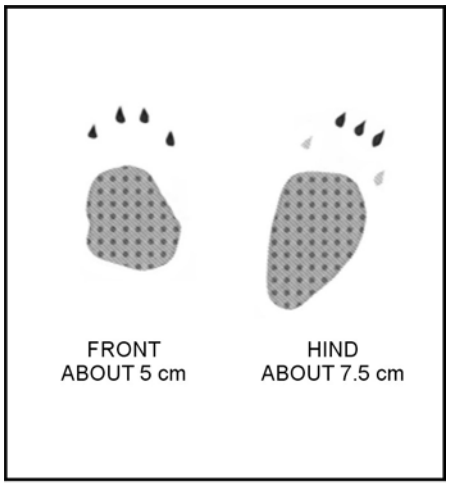
Figure 11A-15 The Coyote

THE PORCUPINE

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 108)

PORCUPINE LOCATIONS

Canadian Wildlife Service & Canadian Wildlife Federation, 2003, Hinterland Who's Who - Mammal Fact Sheets. Retrieved 25 April 2007, from http://www.hww.ca/hww2p.asp?id=102&cid=0



PORCUPINE TRACKS

Bowers, N., Bowers, R., and Kaufman, K., Kaufman Focus Guides: Mammals of North America, Houghton Mifflin Company (p. 108)

The porcupine has a short, blunt-nosed face with small eyes. Its ears are small and round, almost concealed by its hair. The porcupine has humped shoulders and short legs. It is Canada's second largest rodent, next to the beaver. Adult males reach an average weight of 12 lbs (5.5 kg) after six years, whereas females will reach about 10 lbs (4.5 kg). The total length averages 68–100 cm and the height at the shoulders is about 30 cm. The porcupine has a coat comprised of a soft, brown, woolly undercoat and course, long guard hairs. At the base, each guard hair is brown, and becomes darker near the tip. The tip may be different colours in different places—white in eastern areas and yellow in western areas.

The porcupine can be found in most areas and spends the majority of winter in a den. The porcupine feeds largely on the inner back of trees in winter as well as a variety of plants. One of the best-known and least-liked eating habits is that of chewing wood and leather in and around camps. When human-made objects are not available, the porcupine will chew bones and cast-off antlers.

On the porcupine's face the quills are about 1.2 cm long; on the back they can be up to 12.5 cm in length. There are no quills on the muzzle, legs, or under parts of the body. These quills are hollow and are embedded in the skin. When alarmed, a small muscle that is attached to each quill pulls it upright in the fur. About 0.6 cm from the tip, the quill tapers to a fine point that is covered be several dozen small black barbs. These barbs feel slightly rough to the touch, but when they are moist (as they get when embedded in the flesh), they swell and work the quill further in. The porcupine has been estimated to have over 30 000 quills. When quills are lost, they are replaced by new quills, which are white and sharp and remain firmly anchored in the skin until they are fully grown. When in danger, the porcupine will first try to escape. When escape is not an option, the porcupine will hump its back and tuck its head between the shoulders. With all quills erect, it will pivot on its front feet, keeping its back to the enemy. As the back feet stomp around, the tail will be lashed around. The momentum of the tail detaches the loose quills, which fly through the air giving the impression that they were thrown.

Porcupine quills have been found embedded in several predators including the coyote, cougar, bobcat, red fox, lynx, bear and wolf. Some more experienced predators learn to avoid the quills and kill the porcupine by biting its head or by flipping it and exposing its unprotected belly. Being short-sighted and a slow mover, the porcupine is a frequent victim in forest fires and on roadways.

Figure 11A-16 The Porcupine

PROVINCIAL/TERRITORIAL WILDLIFE WORKSHEET

PROVINCIAL/TERRITORIAL

WILDLIFE WORKSHEET

NAME OF WILDLIFE:

GENERAL DESCRIPTION:

HABITAT:

DIET:

UNIQUE CHARACTERISTICS:

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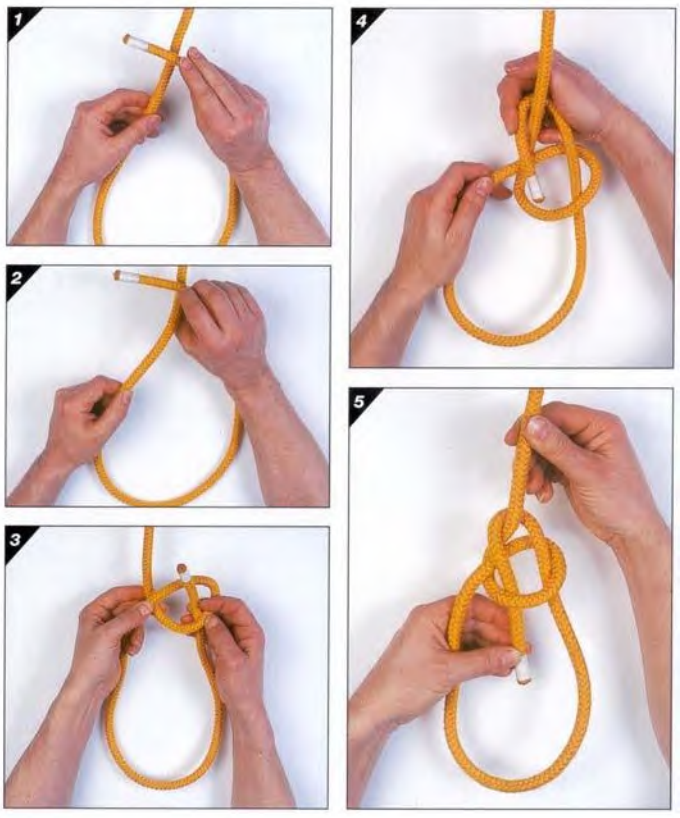
KNOT-TYING INSTRUCTIONS

BOWLINE

Uses. In climbing, it is used as a safety measure during ascent and is clipped into the carabiner. It is often called the rescue knot because it makes a simple loop that does not slip. It can be used to tie around yourself, to throw to someone who needs a lifeline, or to secure objects (such as canoes to a wharf).

Procedure

1. With the standing part of the rope away from you, take the working end in your right hand and place it on top of the standing part.
2. Put your thumb under the standing part.
3. Twist your right hand 180 degrees away from you, to form a simple over hand loop (looks like a number six), and pull the working end up through.
4. Take the working end round behind the standing part.
5. Bring the working end down through the loop. Tighten the bowline by holding on to the bight formed by the end and pulling hard on the standing part.



BOWLINE

Pawson, D., Pocket Guide to Knots & Splices, Chartwell Books, Inc. (p. 164)

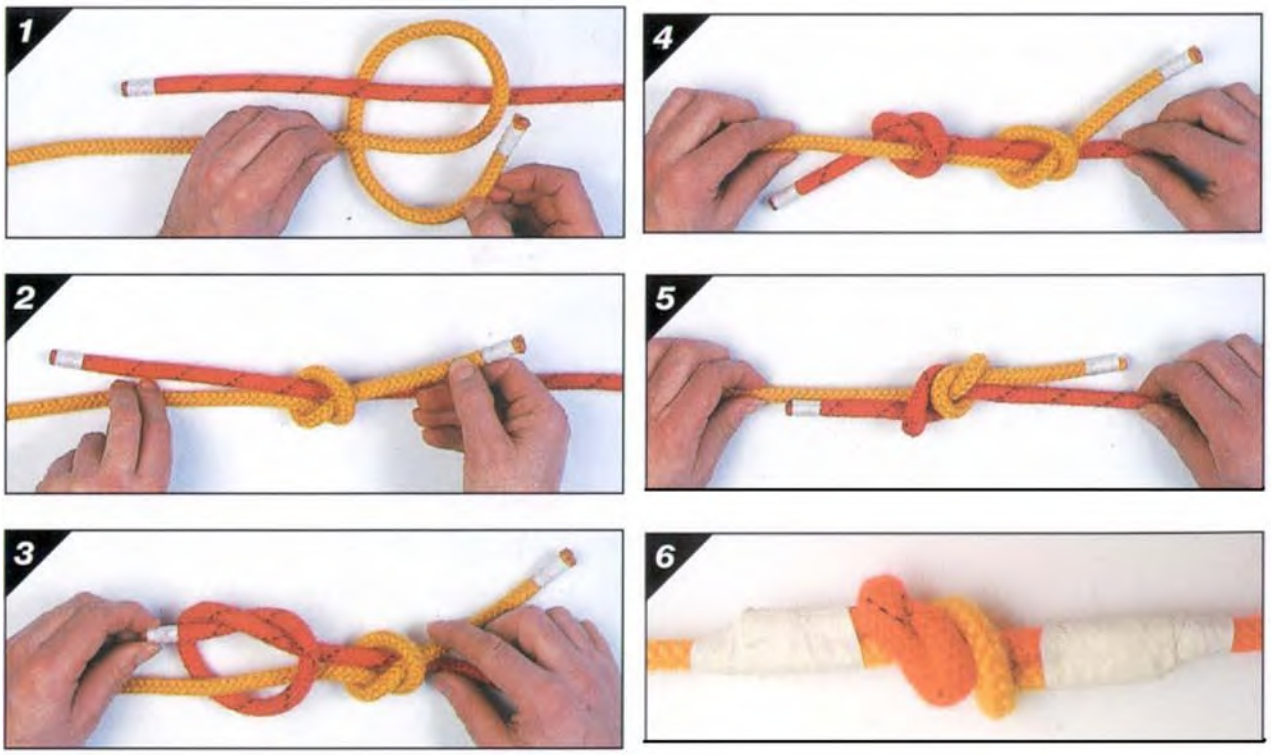
Figure 11C-1 Bowline

FISHERMAN'S KNOT

Uses. To join two pieces of rope together. It is commonly used by anglers and climbers.

Procedure

1. Lay the ropes alongside each other, end to end. Take one of the ropes and bring it over the other and under itself.
2. Make an overhand knot around the second rope.
3. Make an overhand knot around the standing part of the first rope.
4. Slide together to complete the knot.
5. Tighten to finish the fisherman's knot.
6. Tape ends if used in climbing to avoid slipping.



FISHERMAN'S KNOT

Pawson, D., Pocket Guide to Knots & Splices, Chartwell Books, Inc. (p. 116)

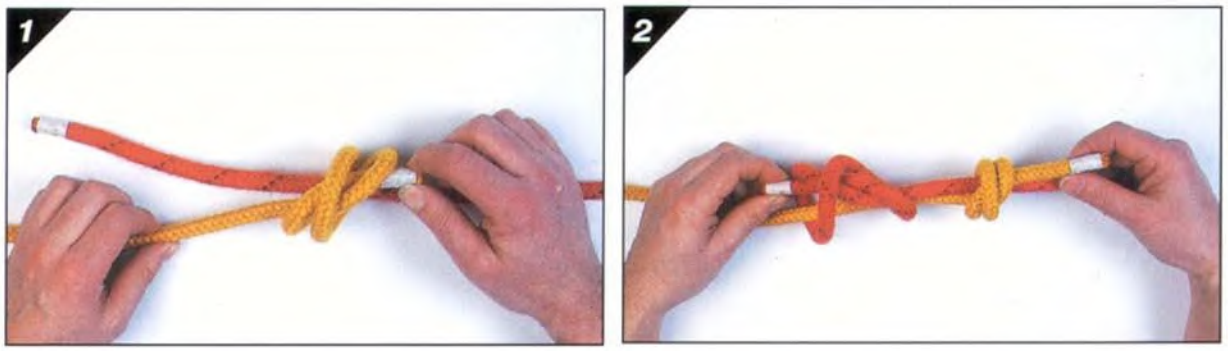
Figure 11C-2 Fisherman's Knot

DOUBLE FISHERMAN'S KNOT

Uses. To join two pieces of rope together. It is commonly used by anglers and climbers. It is ideal for slippery line or rope.

Procedure

1. With the first rope, make a double overhand knot around the body of the second rope.
2. Make a double overhand knot around the body of the first rope.
3. Pull tight and slide together. The knots should make "X's" on one side.



STEPS 1 AND 2

Pawson, D., Pocket Guide to Knots & Splices, Chartwell Books, Inc. (p. 117)

STEP 3

40th Fife Scout Troop, 2007, Knotting the Thumb Knot. Retrieved 3 May 2007, from http://www.users.zetnet.co.uk/whitelaw/knots/dfish.jpg

Figure 11C-3 Double Fisherman's Knot

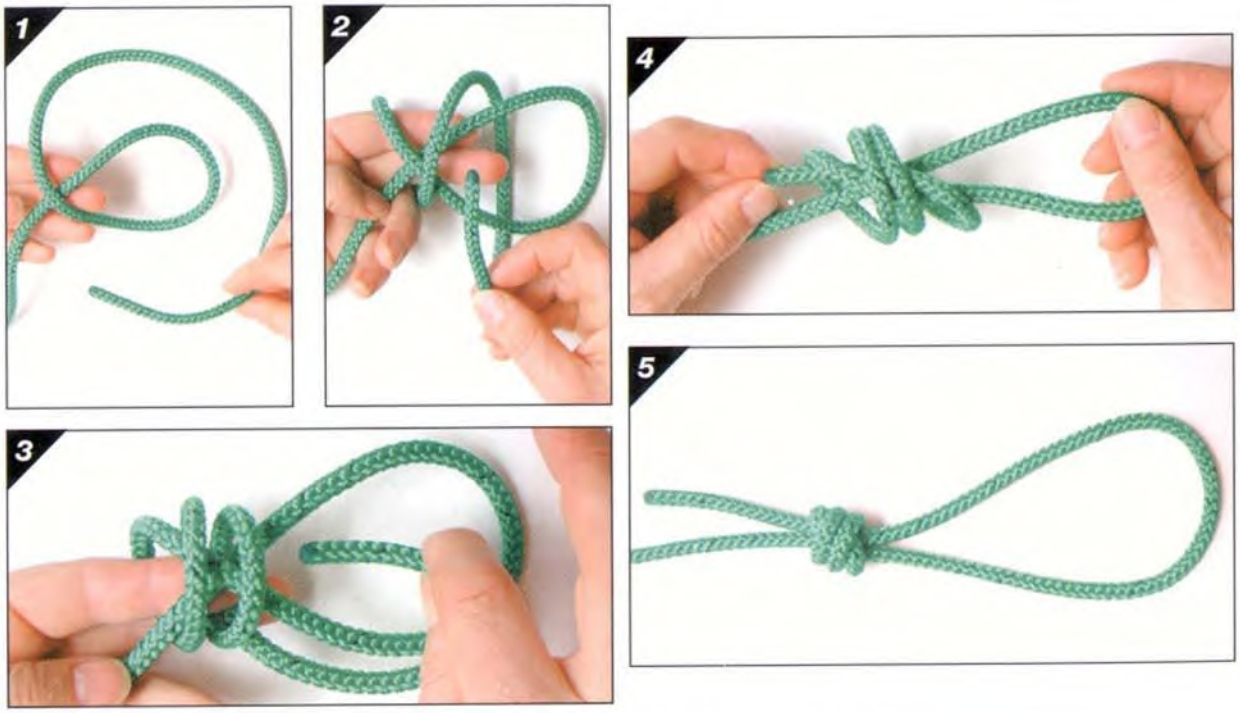
DOUBLE OVERHAND RUNNING KNOT

Uses. This sliding loop grips tightly around an object. It is ideal for fixing a lanyard fast to the arms of sunglasses or spectacles so they can hang around a person's neck when not in use.

Procedure

1. Make a loop with a fairly long working end on top.
2. With fingers parallel to the standing part, wrap around the standing part three times.
3. Put the working end down through the "tunnel" where the fingers are.
4. Tighten the turns by pulling on the working end, working the turns snugly together.

The same knot must be made at the other end of the rope in order to fix it to the arms of sunglasses or spectacles. When two knots are made, the knots can be easily adjusted by pulling on each end to the desired length.



DOUBLE OVERHAND RUNNING KNOT

Pawson, D., Pocket Guide to Knots & Splices, Chartwell Books, Inc. (p. 117)

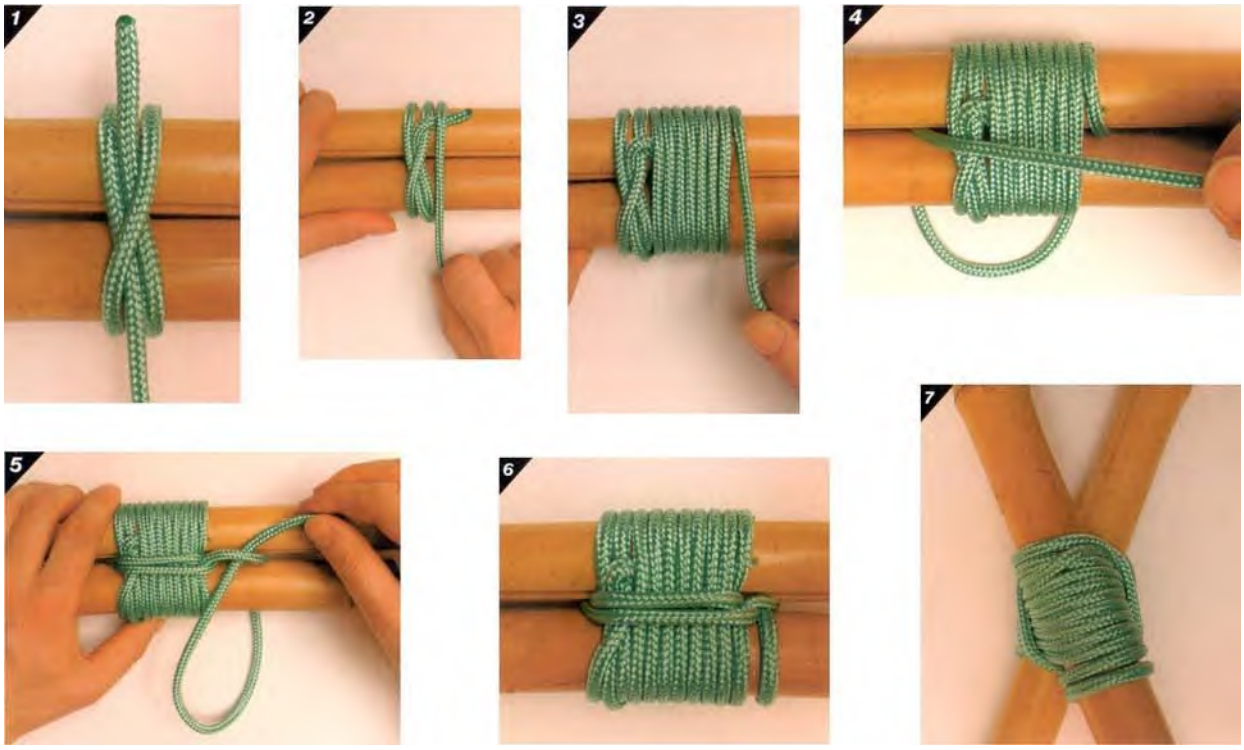
Figure 11C-4 Double Overhand Running Knot

TYING LASHINGS

SHEER LASHING

Procedure

1. Make a clove hitch around both poles.
2. Wrap the standing end around both poles, trapping the working end of the clove hitch underneath.
3. Make eight to ten more wraps around the poles.
4. Bring the rope up between the spars and make two tight turns parallel to the poles.
5. Make a clove hitch around one of the poles.
6. Ensure the lashing is tight and secure.
7. Sheer lashing opened to create a pair of sheer legs or an A-frame.



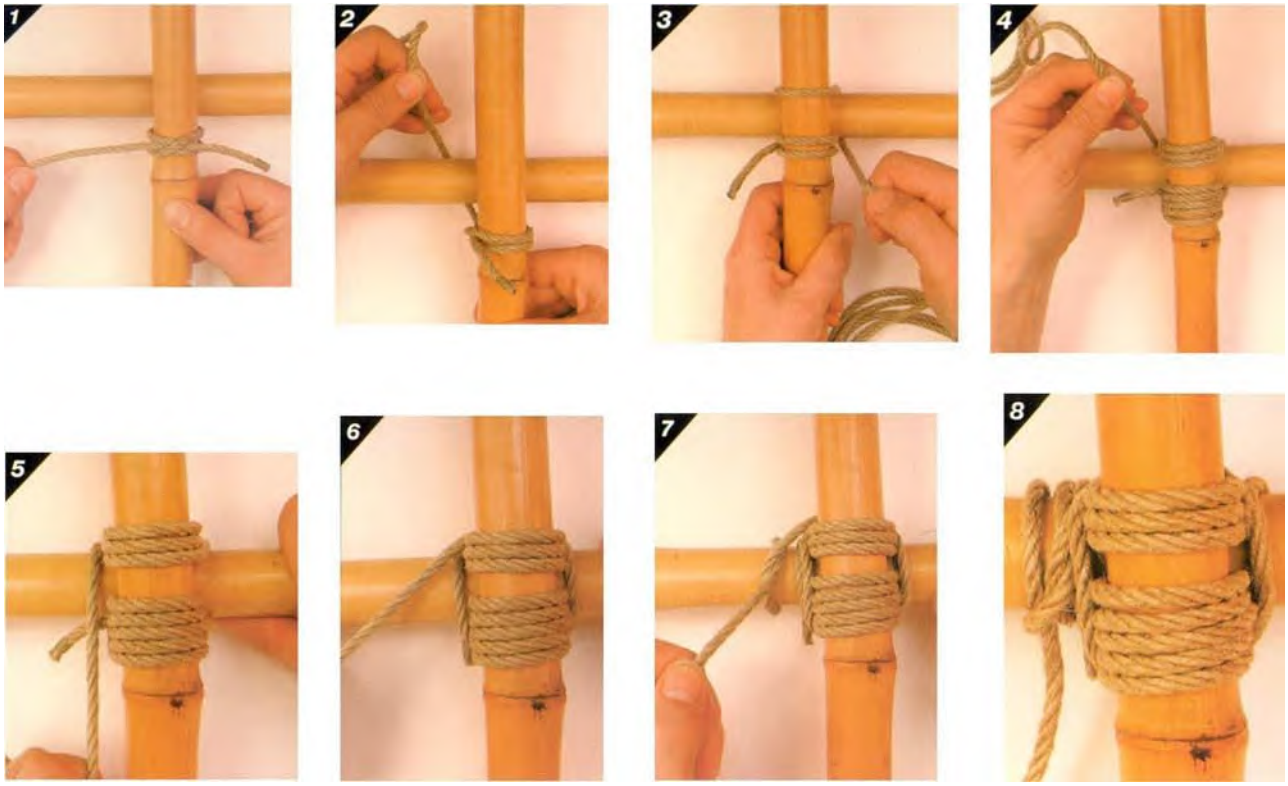
Pawson, D., Pocket Guide to Knots & Splices, Chartwell Books, Inc. (pp. 184-185)

Figure 11D-1 Sheer Lashing

SQUARE LASHING

Procedure

1. With the vertical pole on top of the horizontal pole, make a clove hitch. The vertical pole runs up and down, and the horizontal pole left to right.
2. Bring all of the rope around and behind the horizontal pole.
3. Tightly bring the rope over the vertical pole and back behind the horizontal pole, back to the clove hitch.
4. Continue to make three complete turns around the poles, pulling the rope tight after each turn.
5. After passing the clove hitch, tightly bring the rope to the horizontal pole from behind and start wrapping around the two poles. These wraps are called frapping turns.
6. Make two complete sets of frapping turns.
7. Make a clove hitch around the horizontal pole.
8. Ensure lashing is tight and secure.



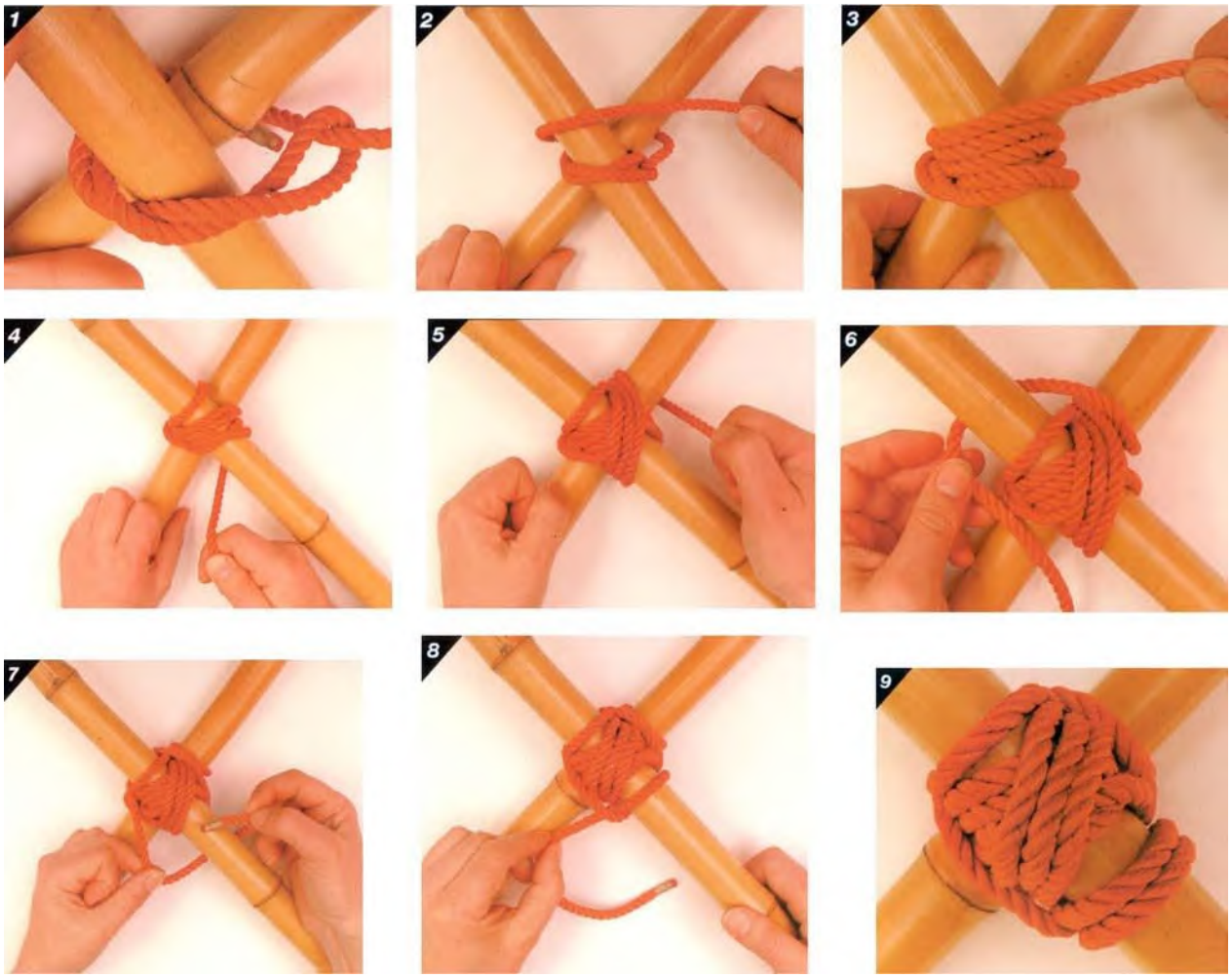
Pawson, D., Pocket Guide to Knots & Splices, Chartwell Books, Inc. (pp. 180-181)

Figure 11D-2 Square Lashing

DIAGONAL LASHING

Procedure

1. Make a timber hitch around the two crossed poles.
2. Make a turn around the two crossed poles, pulling the timber hitch tight.
3. Make three more complete turns in the same direction, pulling them tight.
4. Change direction by coming around one of the poles.
5. Make four full turns around the two poles at right angles to the original turns, pulling them tight.
6. Take the working end of the rope around one of the poles, making a frapping turn.
7. Make two complete frapping turns.
8. Make a clove hitch.
9. Ensure lashing is tight and secure.



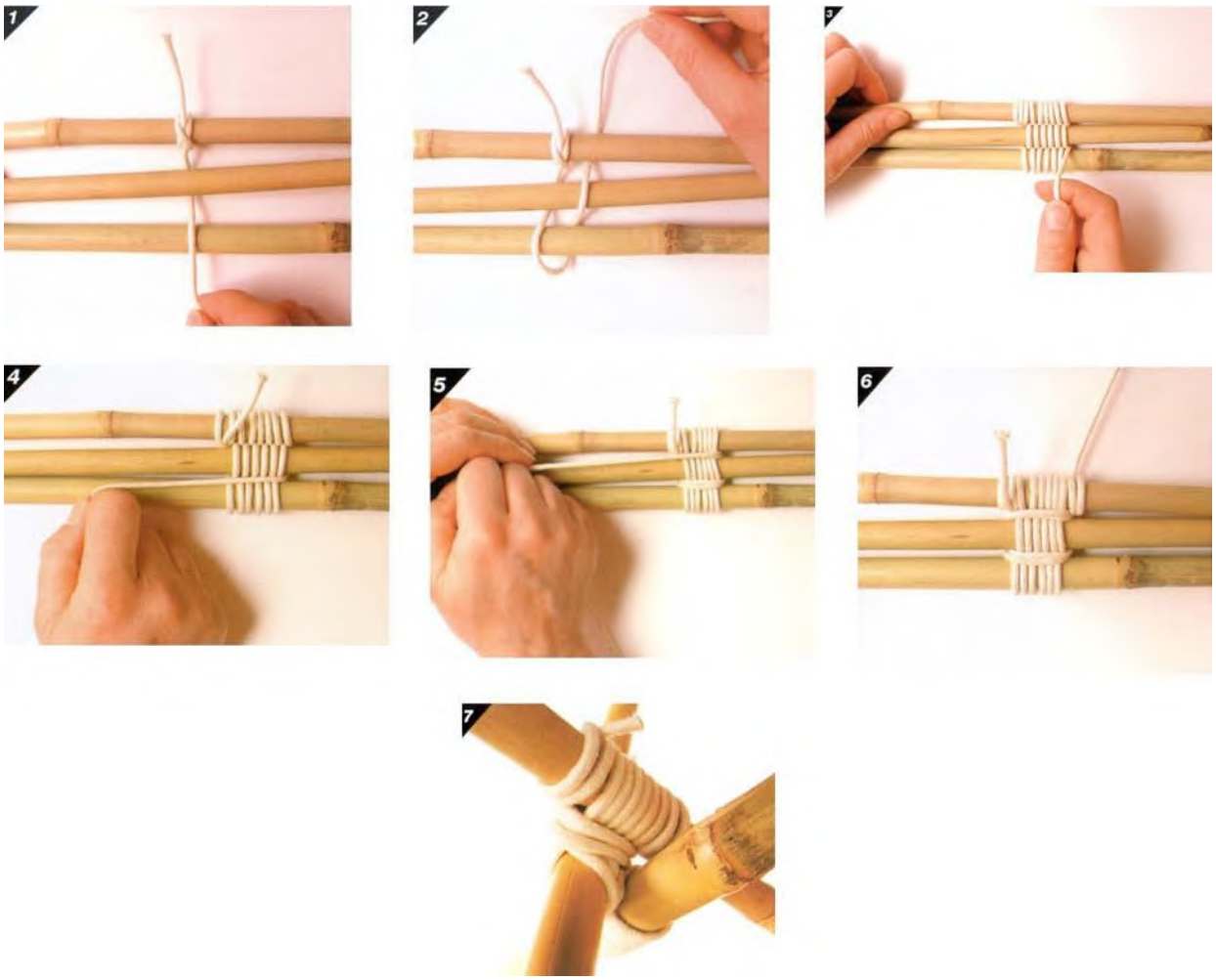
Pawson, D., Pocket Guide to Knots & Splices, Chartwell Books, Inc. (pp. 182-183)

Figure 11D-3 Diagonal Lashing

FIGURE-OF-EIGHT LASHING

Procedure

1. Make a clove hitch around one of the outside poles. Bring the rope under and over the other poles.
2. Go around the pole furthest away from the start and weave the rope back over and under.
3. Continue to weave the rope under and over eight times. Bring the rope up in between any two poles.
4. Pull the rope parallel to the poles and put in two frapping turns.
5. Make three frapping turns in between the remaining poles.
6. Make a clove hitch around the pole that already has a clove hitch (from the beginning) at the opposite end.
7. Open up the poles.



Pawson, D., Pocket Guide to Knots & Splices, Chartwell Books, Inc. (pp. 187-188)

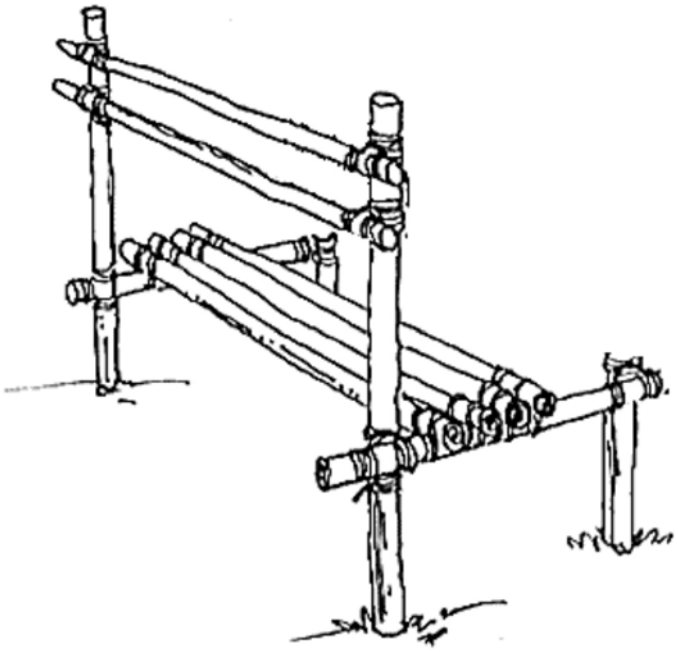
Figure 11D-4 Figure-of-eight Lashing

FIELD AMENITIES

BENCH WITH BACK REST

Instructions

1. Find a large area.
2. Obtain the following resources:
   - a large quantity of rope;
   - eight round pieces of wood/logs approximately two metres each;
   - two round pieces of wood/logs approximately one metre each; and
   - two round pieces of wood/logs approximately one half metre each.
3. Begin by constructing the sitting portion of the bench by attaching four long pieces of wood to the one metre pieces, using square lashings.
4. Drive the two long and two short pieces of wood that will be used as the legs of the bench into the ground.
5. Lash the sitting portion onto the legs, using square lashings.
6. Construct the back rest using square lashings and attach it to the long legs in the ground.



BENCH WITH BACK REST

PioneeringProjects.org, by A. Miller, 2004, Projects, Copyright 2001 from PioneeringProjects.org. Retrieved 20 February 2007, from http://www.pioneeringprojects.org/projects/index.htm

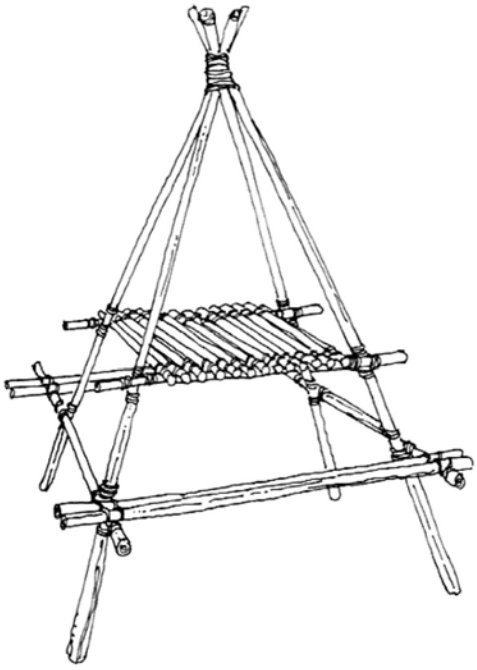
Figure 11E-1 Bench With Back Rest

CAMP TABLE

Instructions

1. Find a large area.
2. Obtain the following resources:
   - a large quantity of rope,
   - four round pieces of wood/logs approximately three metres each;
   - six round pieces of wood/logs approximately two metres each;
   - two round pieces of wood/logs approximately one metre and a half each; and
   - fourteen round pieces of wood/logs approximately one half metre each.
3. Construct a figure-of-eight lashing around the four long pieces of wood, to make an A-frame.
4. Construct the table top, using square lashings.
5. Attach the table top portion to the long poles, using square lashings.
6. Make the sitting portion using square lashings and attach it to the long poles using square lashings.

The best lashing to use for the peak of the camp table is the figure-of-eight lashing. It must be tied using the indicated steps; however, there will be four poles used instead of three.



CAMP TABLE

PioneeringProjects.org, by A. Miller, 2004, Projects, Copyright 2001 from PioneeringProjects.org. Retrieved 20 February 2007, from http://www.pioneeringprojects.org/projects/index.htm

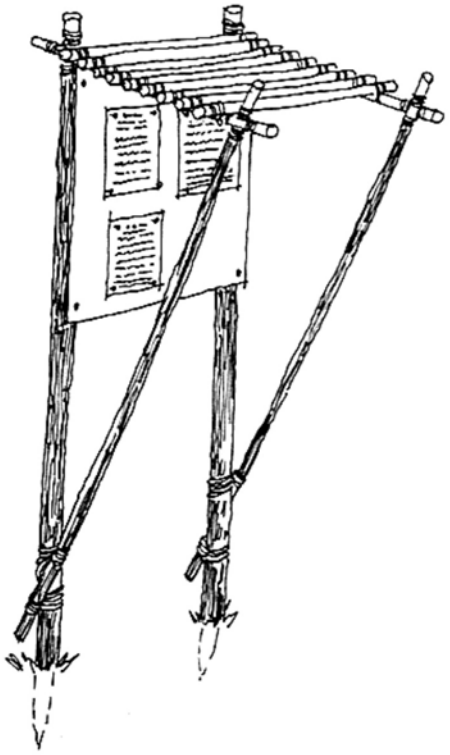
Figure 11E-2 Camp Table

BULLETIN BOARD

Instructions

1. Find a large area.
2. Obtain the following resources:
   - a large quantity of rope;
   - two thick round pieces of wood/logs approximately two metres each;
   - two round pieces of wood/logs approximately two metres each; and
   - twelve round pieces of wood/logs approximately one metre each.
3. Construct the canopy portion of the bulletin board using square lashings.
4. Tie the ends of the thin two metre wood to the thick two metre wood with a sheer lashing.
5. Use diagonal lashings to fasten the thin two metre wood to the canopy.
6. Square lash the end of the canopy to the thick wood.
7. Drive the two thick round pieces of wood into the ground.

A flat piece of wood or a piece of bristol board can be used for the background of the bulletin board.



BULLETIN BOARD

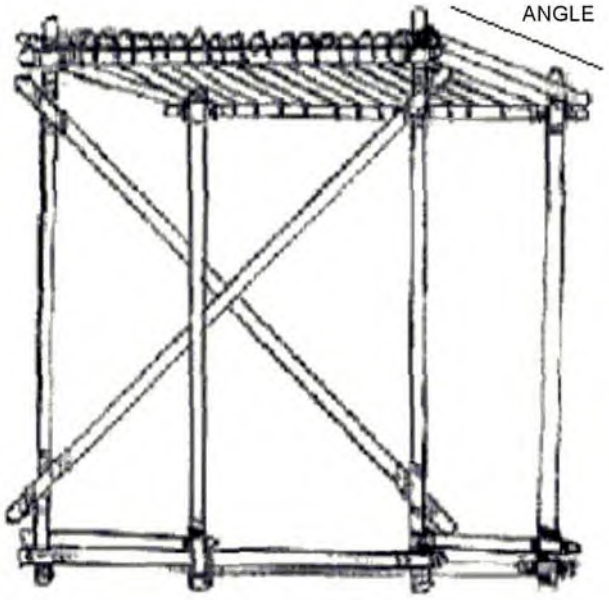
PioneeringProjects.org, by A. Miller, 2004, Projects, Copyright 2001 from PioneeringProjects.org. Retrieved 20 February 2007, from http://www.pioneeringprojects.org/projects/index.htm

Figure 11E-3 Bulletin Board

PODIUM

Instructions

1. Find a large area.
2. Obtain the following resources:
   - a large quantity of rope;
   - twelve to fifteen round pieces of wood/logs approximately one half metre each; and
   - eight round pieces of wood/logs approximately one and a half metres each.
3. Construct the table portion of the podium using square lashings.
4. Construct the base of the podium using square lashings. The X portion will provide needed support and requires diagonal lashings.
5. Square lash the table portion of the podium to the base.



PODIUM

PioneeringProjects.org, by A. Miller, 2004, Projects, Copyright 2001 from PioneeringProjects.org. Retrieved 20 February 2007, from http://www.pioneeringprojects.org/projects/index.htm

Figure 11E-4 Podium

ANSWER SHEET

TREE IDENTIFICATION

1.
2.
3.
4.
5.

Notes

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PICTURES OF TREES

SPECIES A

Degree Confluence Project, 2006, Russia:Smolenskaya, Copyright 2006 for Alex Jarrett. Retrieved 4 April 2007 from http://www.confluence.org/photo.php?visitid=8546&pic=ALL

Figure 11G-1 Tree Grove

Richard's Notes, 2004, White Birch Bark, Copyright 2004 by Richard's Note. Retrieved 27 March 2007, from http://www.richardsnotes.org/archives/2004/03/page/2/

Figure 11G-2 Tree Bark

SPECIES B

Wikipedia, 2006, Hickory. Copyright 2003 by Susan Sweeney. Retrieved 4 April 2007, from http://en.wikipedia.org/wiki/hickory

Figure 11G-3 Tree

Firewood, Copyright 2007 by Donnan.com. Retrieved 27 March 2007, from http://www.donnan.com/firewood.htm

Figure 11G-4 Tree Bark

SPECIES C

Islandnet.com, 2004, Beacon Hill Park History 1842-2004, Copyright 2004 by Janis Ringuette. Retrieved 4 April 2007, from http://www.islandnet.com/beaconhillpark/contents/chapter1.htm

Figure 11G-5 Tree

Firewood, Copyright 2007 by Donnan.com. Retrieved 27 March 2007, from http://www.donnan.com/firewood.htm

Figure 11G-6 Tree Bark

SPECIES D

Ministry of Forest and Range – Government of British Columbia, 2001, Tree Book-Yellow Cedar, Copyright 2001 by the Province of British Columbia. Retrieved 30 March 2007, from http://www.for.gov.bc.ca/hfd/librarydocuments/treebook/yellowcedar.htm

Figure 11G-7 Tree

Wikipedia, 2006, Thuja Plicata. Retrieved 30 March 2007, from http://en.wikipedia.org/wiki/thuja_plicata

Figure 11G-8 Tree Bark

SPECIES E

Ministry of Forest and Range – Government of British Columbia, 2001, Tree Book-Western Larch, Copyright 2001 by the Province of British Columbia. Retrieved 30 March 2007, from http://www.for.gov.bc.ca/hfd/librarydocuments/treebook/westernlarch.htm

Figure 11G-9 Tree

Ministry of Forest and Range – Government of British Columbia, 2001, Tree Book Western Larch, Copyright 2001by the Province of British Columbia. Retrieved 30 March 2007, from http://www.for.gov.bc.ca/hfd/librarydocuments/treebook/westernlarch.htm

Figure 11G-10 Tree Bark

SPECIES F

Ashcroft Farm, 2006, Type of Christmas Trees, Copyright 2006 by Ashcroft Farm. Retrieved 4 April 2007, from http://www.ashcroftfarm.com/types.html

Figure 11G-11 Tree

St. Mary's School, 2003, Mrs. Zvonar's Tree Page, Copyright 2003 by St. Mary's School. Retrieved 27 March 2007, from http://www.stmarysschool.net/whitesprucetree_cb.html

Figure 11G-12 Tree Bark

CHAPTER 12

PO 222 – NAVIGATE ALONG A ROUTE USING A MAP AND COMPASS

ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 1

EO M222.01 – REVIEW GREEN STAR NAVIGATION

Total Time: 60 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Using a topographical map of the local area, to identify the objects, land features with grid references (GR) to be used during the activity.

Set up stations for the activity in TP2.

Copy the map folding activity sheet located at Annex A for each cadet.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TP1 to present background material.

A practical activity was chosen for TP2 as it is an interactive way to allow cadets to experience navigation in a safe, controlled environment. This activity contributes to the development of navigation skills and knowledge in a fun and challenging setting.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson, the cadet shall have reviewed Green Star navigation skills to include:

- maintaining and folding a map;
- identifying marginal information;
- identifying conventional signs;

- identifying types of slopes;
- determining four and six-figure GR; and
- orienting a map by inspection.

IMPORTANCE

It is important for cadets to participate in a review of Green Star navigation training as it provides the building blocks for advanced navigation. This training must be mastered before cadets are taught new navigation skills in Red Star.

Teaching Point 1 **Conduct a Review of Green Star Navigation**

Time: 10 min Method: Interactive Lecture

Do not spend too much time on any one point. Briefly review Green Star navigation. The activity will be used to confirm this lesson.

MAINTAINING AND FOLDING OF A MAP

Although there are waterproof maps of some areas, most maps are printed on regular paper. Paper maps are expensive and easily damaged. Therefore, precautions must be taken to protect them from water, dirt and wind damage.

Waterproofing a Map. When exposed to water, maps become soggy causing them to deteriorate and tear. Preparing a map for the elements is a vital step in prolonging the life of the map. The easiest and cheapest way to protect a map is to put it in a plastic sealable bag.

Drying a Map. If a map gets wet, let it dry completely on a clean flat surface.

Opening a Map. When a map is opened fully in a strong wind, not only is it impossible to read, but it could tear, get dirty, or even blow away. The map should only be opened to the area you are using, and refolded along the original fold lines.

Writing on a Map. Writing on a map should be done only when necessary. Always use pencil to mark your maps and when finished, gently erase all markings. Maps that are protected by plastic can be marked with grease pencils or erasable markers.

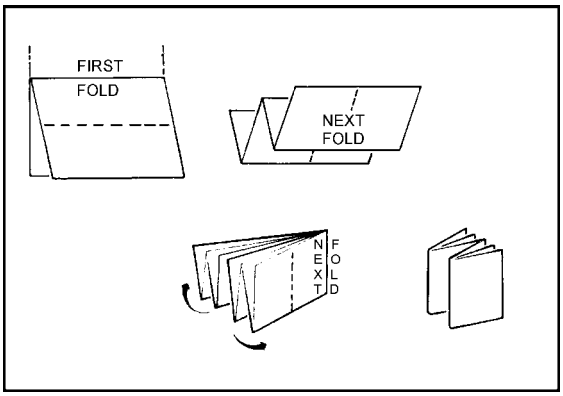
Storing a Map. Maps are to be stored in a dry place and should be rolled, folded, or laid flat.

Arrange the cadets so they can see the demonstration and hear the explanation of folding a map as listed below, prior to the cadets practicing this procedure.

Folding a Map. To fold a map:

1. lay the map face up;
2. fold the map in half by bringing the top (north) of the map sheet down to the bottom (south);

3. crease where the bend in the map has occurred, this is the centre of the map;
4. fold back the top half of the map sheet;
5. turn the map sheet over and fold the bottom half to match the top half;
6. fold the ends of the map in half from left to right; and
7. fold the ends back in half again so that the map name and index appear on the outside (the map should look like the letter M).



A-CR-CCP-121/PT-001 (p. 5-5)

Figure 12-1-1 Folding a Map

IDENTIFYING MARGINAL INFORMATION

Do not spend too much time on any one point. Briefly review Green Star navigation. The activity will be used to confirm this lesson.

A map, like any piece of equipment, has instructions that the user must read. It is important to know how to read these instructions. Marginal information is used to explain and describe the details found in the margins of the map. The common marginal information found on a map includes:

- name of the map sheet;
- number of the map and index of adjoining maps;
- date of map data;
- map scale;
- scale bars or graphic linear scales;
- contour interval;
- military index number (normally found at the top right corner of the map sheet which is used for ordering additional maps);
- declination diagram;
- Universal Transverse Mercator grid system (UTM); and

- legend of conventional signs.

IDENTIFYING CONVENTIONAL SIGNS

A conventional sign is a symbol used to indicate an object or item of detail, such as a building or a road. The meaning of most symbols is obvious. There are tables of conventional signs located in the margins and on the back of most maps. The use of different colours is a way of showing and distinguishing detail of all types of conventional signs.

INTERPRETING CONTOUR LINES

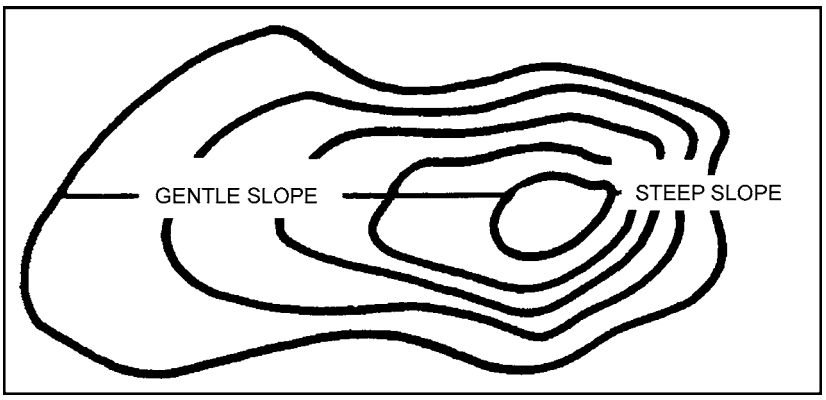
A contour line is a brown line on the map joining points of equal elevation. They are shown at regular vertical intervals. The difference in height between contours lines is called the contour interval. The contour interval is always stated in the margin of the map.

Interpreting contour lines and contour intervals provides a visualization of the shape of the ground. Correct interpretation of the shape of the ground from contour lines on the map will indicate the type of land feature on the ground. Some different types of land features are:

Steep Slope. This slope is identified when the contour lines are spaced closely together.

Gentle Slope. This slope is identified when the contour lines are further apart.

Uniform Slope. This slope is identified when the contours are an equal distance apart. The slope remains constant in its decline, whether steep or gentle.

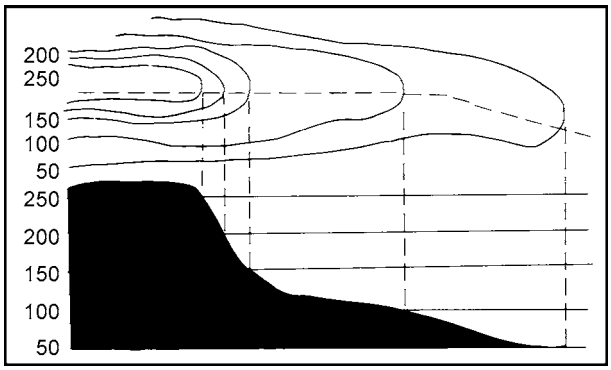


D Cdts, Royal Canadian Army Cadets Basic Map Using, Department of National Defence (p. 1-44)

Figure 12-1-2 Slopes

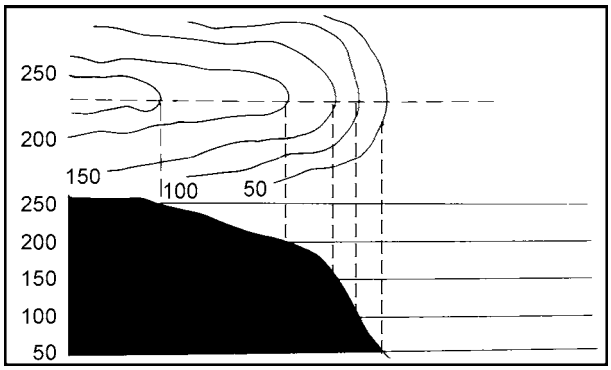
Concave Slope. This slope is identified when the spacing of the contours gets further apart at the bottom. The middle of the slope seems to depress inward – appearing concave.

Convex Slope. This slope is identified when the spacing of contours down a slope gets close together at the bottom. The middle of the slope seems to bulge outward – appearing convex.



B-GL-382-005/PT-001, Maps, Field Sketching, Compasses and the Global Positioning System (p. 32)

Figure 12-1-3 Concave Slope

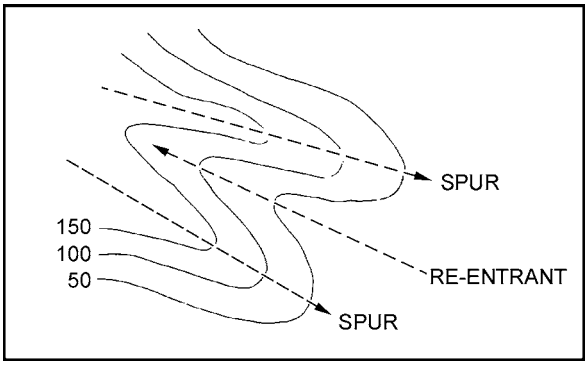


B-GL-382-005/PT-001 (p. 32)

Figure 12-1-4 Convex Slope

Spurs. A spur is a contour feature that extends out from a slope.

Re-entrants. A re-entrant is a contour feature that cuts back into a slope.

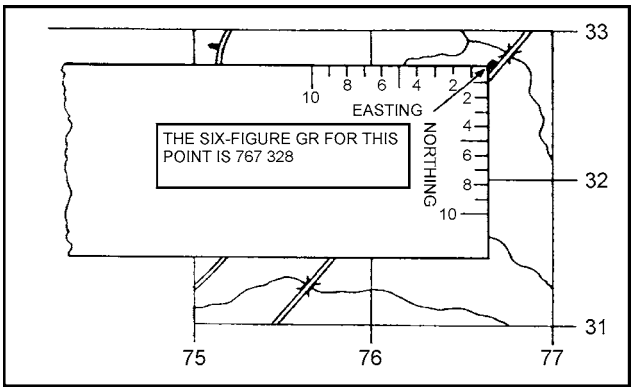


B-GL-382-005/PT-001 (p. 32)

Figure 12-1-5 Spur/Re-entrant

DETERMINING A GRID REFERENCE (GR)

Using the grid system, a grid reference (GR) identifies a location on a map. When determining a GR to a square, the reference is always to the southwest (bottom left) corner of the square. GRs are always given with the easting value first, followed by the northing value. A four-figure GR is used to identify a specific 1000 m by 1000 m grid square. A six-figure GR is used to determine a more accurate location within a specific 100 m by 100 m grid square.



A-CR-CCP-121/PT-001 (p. 5-20)

Figure 12-1-6 Determine a GR

ORIENTING A MAP BY INSPECTION

Orienting a map by inspection means to visually pinpoint a location on the ground so that the cardinal directions on the map match directions on the ground. Orienting a map by inspection makes it easier to relate information on the map to features on the ground. To pinpoint a position more accurately, these steps must be followed:

1. Identify one's approximate position on the map.
2. Identify two or three prominent landmarks in different directions on the ground and find them on the map.
3. Rotate the map until all identified objects on the map line up with the direction in which objects are located on the ground. If near a straight stretch of road, orient the map by using the road. Line up the road on the map parallel with the road on the ground.
4. Check all around to verify that the terrain features to the front are in front of the position on the map, and so on. The top of the map now points north.

CONFIRMATION OF TEACHING POINT 1

The cadets' participation in the navigation round robin activity will serve as the confirmation of this TP.

Teaching Point 2 **Conduct a Navigation Activity**

Time: 40 min Method: Practical Activity

ACTIVITY

OBJECTIVE

The objective of this activity is to confirm navigation training taught during Green Star.

RESOURCES

- 6 foot table (one per station);
- Romer (one per station);
- Topographical map (one per station);

- Map folding activity sheet located at Annex A;
- Land feature sheet located at Annex B; and
- Assistant instructor (one per group).

ACTIVITY LAYOUT

- This round robin activity will have four different stations spaced apart.
- Set up one 6 foot table per station.
- Place a map and a romer at each station.

ACTIVITY INSTRUCTIONS

In teams of no more than five cadets, the group will move through a series of stations to confirm Green Star Navigation material. This is to be conducted as group work, not individual work, meaning the whole group must agree on the final answer given. Groups will have eight minutes to complete the activity at each station and two minutes for debriefing.

- **Station 1 – Conventional Signs and Marginal Information.** Cadets will be asked to select five conventional signs from the legend and identify them on the map sheet. Then identify five items of marginal information and locate them on the map, which may include:
  - name of the map sheet;
  - number of the map sheet and index;
  - map scale and bar;
  - contour intervals; and
  - declination diagram.
- **Station 2 – Contour Lines and Features.** Cadets will identify two land features from the sheet located at Annex B and locate similar features on the map sheet.
- **Station 3 – Grid References (GR)**
  - Cadets will be given one four-figure GR and one six-figure GR and identify what is located at each GR.
  - Cadets will be given two distinct conventional signs on the map sheet. They must locate the object and give the six-figure GR of that object.
- **Station 4 – Orient a Map by Inspection and Fold a Map.** The cadets will be given a six-figure GR of their location and must orient the map by inspection. If this activity is being conducted indoors, draw symbols for some prominent objects, then place them on the walls for the cadets to use as a reference. Then cadets must complete the map folding activity so that the map index is seen.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 2

The cadets' participation in the navigation round robin activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

QUESTIONS

Q1. Why is it important to maintain and fold a map?

Q2. What corner of the grid square is used when determining a GR?

Q3. How many prominent objects should be used when orienting a map by inspection?

ANTICIPATED ANSWERS

A1. Maintenance is important to prolong the life of the map sheet.

A2. The GR is always to the southwest (bottom left) corner of the square.

A3. When orienting a map by inspection, two or three prominent objects in different directions should be used.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Map reading is a skill, and true proficiency will only be mastered by practice in the outdoors. The skills you have learned during Green Star are the building blocks required before moving on to more complex navigation training. Remember, practice makes perfect!

INSTRUCTOR NOTES/REMARKS

A thorough understanding of Green Star navigation training is required before cadets are taught new navigation skills in Red Star. This EO will provide an opportunity for cadets to practice skills they learned in the corps program.

REFERENCES

A2-041 B-GL-382-005/PT-001 Canadian Forces. (2006). *Maps, Field Sketching, Compasses and the Global Positioning System*. Ottawa, ON: Department of National Defence.

ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 2

EO M222.02 – DESCRIBE BEARINGS

Total Time: 60 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Photocopy the compass rose activity sheet located at Annex C for each pair of cadets.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TP1 to TP4 to present basic material, orient the cadets to bearings, and to generate interest.

A practical activity was chosen for TP5 as it is an interactive way to introduce cadets to bearings. This activity contributes to the development of navigation skills and knowledge in a fun and challenging setting.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to:

- identify the 16 points of a compass;
- define mils and degrees;
- identify true, grid, and magnetic north; and
- describe bearings.

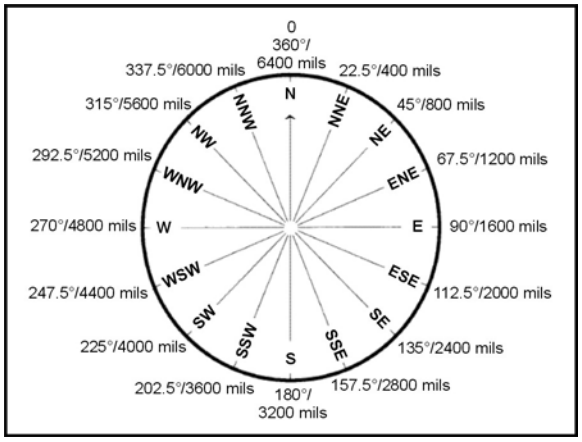
IMPORTANCE

It is important for cadets to describe bearings as this will assist them in finding the direction of identifiable landmarks on a map. Cadets will rely on this skill set throughout navigation and expedition training.

Teaching Point 1 **Identify and Explain the 16 Points of a Compass**

Time: 10 min Method: Interactive Lecture

Draw a compass rose (circle) on the board with the four cardinal points. Draw a new line each time you introduce the inter-cardinal and intermediate points.



D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 12-2-1 Compass Rose

FOUR CARDINAL POINTS

The four cardinal points of the compass, measured at right angles clockwise are north (N), east (E), south (S) and west (W). They can be easily remembered by the using mnemonics, such as “Never Eat Shredded Wheat”.

FOUR INTER-CARDINAL POINTS

The four inter-cardinal points are located halfway between each of the cardinal points. Measured clockwise, they are:

1. north-east (NE);
2. south-east (SE);
3. south-west (SW); and
4. north-west (NW).

EIGHT INTERMEDIATE POINTS

The eight intermediate points are located halfway between each cardinal point and inter-cardinal point. Measured clockwise, they are:

1. north-north-east (NNE);
2. east-north-east (ENE);
3. east-south-east (ESE);
4. south-south-east (SSE);
5. south-south-west (SSW);
6. west-south-west (WSW);
7. west-north-west (WNW); and
8. north-north-west (NNW).

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. What is a mnemonic used to remember the four cardinal points?

Q2. What are the four inter-cardinal points?

Q3. How many intermediate points are there?

ANTICIPATED ANSWERS

A1. “Never Eat Shredded Wheat”.

A2. North-east (NE), south-east (SE), south-west (SW) and north-west (NW).

A3. There are eight intermediate points.

Teaching Point 2 **Explain the Scales on a Compass**

Time: 5 min Method: Interactive Lecture

Using the compass rose from TP1, add the degree and mils values on the outside of the circle for the cardinal points (N, E, S and W).

To express direction in an accurate and precise method, the full circle of the compass rose is divided into equal measures of angle. This measurement starts and ends at north (top) and always moves in a clockwise rotation. There are two main scales used to measure a circle – they are degrees and mils.

Degrees. The most common method of dividing a circle is by degrees. There are 360 equal angles in a complete circle and they are represented by the degree symbol (e.g. 360°). On the compass rose, north is located at 0 and 360 degrees, east is located at 90 degrees, south is located at 180 degrees and west is located at 270 degrees.

Mils. When a more accurate division of the same circle is required, the metric milli-radian (mils) method is used. The mils method has a military background and is based on the metric system with 6400 equal angles in a complete circle. On the compass rose, north is located at 0 and 6400 mils, east is located at 1600 mils, south is located at 3200 mils and west is located at 4800 mils.

There are 22.5 degrees or 400 mils between each point on a compass rose.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. How many degrees make a complete circle?

Q2. How many mils make a complete circle?

Q3. Which are more accurate, degrees or mils?

ANTICIPATED ANSWERS

A1. 360 degrees.

A2. 6400 mils.

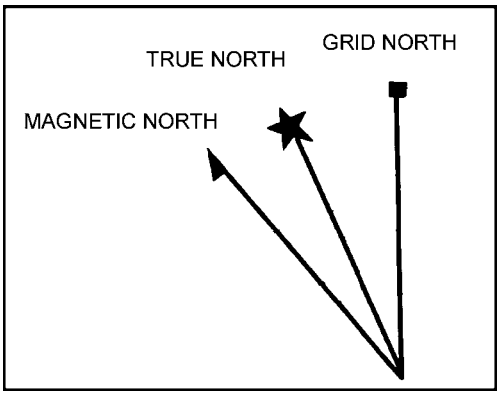
A3. Mils.

Teaching Point 3 **Identify and Explain the Three Norths**

Time: 10 min Method: Interactive Lecture

In navigation there are three different norths that are used – true north, grid north and magnetic north. Each north varies a small amount from each other and must be known for use in navigation. A diagram representing the three norths can be found in the margin of the map being used.

Draw Figure 12-2-2 on the board and draw the symbol for each north as it is explained to the cadets.



B-GL-382-005/PT-001 (p. 51)

Figure 12-2-2 Three Norths

True North. True north is located at the top of the earth where the geographic North Pole is found, and is where all lines of longitude meet. In the diagram on the map, true north is represented by a star (Polaris).

Grid North. Grid north is the north indicated by the grid lines (eastings) on a topographical map. The easting lines run parallel to each other and will never meet at the North Pole; because of this, grid north points off slightly from true north. In the diagram on the map, grid north is represented by a square (map grid).

Magnetic North. Magnetic north is the direction in which the compass needle points. This direction is to the magnetic pole which is located in the Canadian arctic and is slightly different from true north (North Pole). In the diagram on the map, magnetic north is represented by a needle (compass).

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

Q1. What symbol is used to represent true north?

Q2. What symbol is used to represent grid north?

Q3. What symbol is used to represent magnetic north?

ANTICIPATED ANSWERS

A1. A star, as in Polaris.

A2. A square, as in a grid square.

A3. A needle, as in a compass.

Teaching Point 4 **Explain Bearings**

Time: 10 min Method: Interactive Lecture

Poll the cadets to define an angle as they have learned in school. To represent the cardinal points; stand at the front of the class (N) and have one cadet stand six paces in front of you (S), another three paces in front and three paces to the left (E) and another three paces in front and three paces to the right (W). Using the centre point, ask the cadets what are the angles between you and each cadet.

DEFINITION OF A BEARING

Bearing. A bearing is an angle that is measured clockwise, from a fixed zero line; north is always this zero line. Simply, a bearing is just another name for an angle.

TYPES OF BEARINGS

Grid Bearings. A grid bearing is a bearing that is measure between two points on a map. The ability to measure a bearing from a map allows a map user to plan routes or activities before going into the field, and allows an easy method of communicating information about movement or location.

Magnetic Bearings. A magnetic bearing is a bearing that is measured between two points using a compass. A magnetic bearing is a quick and efficient method of describing a route to take. The bearing alone is usually not enough information to navigate with and must also have distance or a target object.

Back Bearing. A back bearing is a bearing that is in the exact opposite direction of the bearing that has been measured. A back bearing can be useful for different reasons; to return to the start location after a hike, or to calculate the bearing from an object to one's current location. Depending on the compass being used, the steps to calculate a back bearing are:

- If the bearing is less than 3200 mils or 180 degrees, add 3200 mils or 180 degrees.
- If the bearing is greater than 3200 mils or 180 degrees, subtract 3200 mils or 180 degrees.

In the 1920's, it became accepted world wide to indicate direction by a number representing an angle, measured clockwise from True North; called a "bearing".

CONFIRMATION OF TEACHING POINT 4

QUESTIONS

Q1. What is another name for an angle?

Q2. What is a grid bearing?

Q3. What is a magnetic bearing?

ANTICIPATED ANSWERS

A1. A bearing.

A2. A bearing measured on a map.

A3. A bearing measured with a compass.

Teaching Point 5 **Complete a Compass Rose Activity**

Time: 15 min Method: Practical Activity

ACTIVITY

OBJECTIVE

The objective of this activity is to have cadets label a compass rose with the inter-cardinal points and the degrees and mils value for each.

RESOURCES

Compass rose activity sheet located at Annex C of this Instructional Guide.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Divide the cadets into pairs.
2. Issue each cadet with a copy of the compass rose activity sheet.

3. Allow cadets five to seven minutes to complete the activity sheet as a team.
4. Review answers starting at north to include compass point name, degrees and mils.
5. Allow cadets to keep activity sheets for future reference.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 5

The cadets' participation in the compass rose activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

QUESTIONS

Q1. What is another name for a bearing?

Q2. How many degrees and how many mils make a complete circle?

Q3. What symbols are used to represent the three norths?

ANTICIPATED ANSWERS

A1. An angle.

A2. 360 degrees and 6400 mils.

A3. True north is a star (Polaris), grid north is a square (map grid) and magnetic north is a needle (compass).

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Being able to describe bearings is an important aspect of navigation training, as it allows cadets to identify direction when travelling from one point to another.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

A2-041 B-GL-382-005/PT-001 Canadian Forces. (2006). *Maps, Field Sketching, Compasses and the Global Positioning System*. Ottawa, ON: Department of National Defence.

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ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 3

EO M222.03 – IDENTIFY COMPASS PARTS

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Calculate the magnetic declination for the map being used.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TP1 to present basic material, orient the cadets to the compass, and generate interest.

Demonstration and performance was chosen for TP2 as it allows the instructor to explain and demonstrate the navigation skills the cadets are expected to acquire, while providing an opportunity for the cadets to practice navigation under supervision.

INTRODUCTION

REVIEW

The review for this lesson is from EO M222.02 (Describe Bearings).

QUESTIONS

Q1. What are the four inter-cardinal points of a compass rose?

Q2. How many degrees and how many mils make a complete circle?

Q3. What symbols are used to represent the three norths?

ANTICIPATED ANSWERS

A1. North-east, south-east, south-west and north-west.

A2. 360 degrees and 6400 mils.

A3. True north is a star (Polaris), grid north is a square (map grid) and magnetic north is a needle (compass).

OBJECTIVES

By the end of this lesson the cadet shall have identified the parts of the compass.

IMPORTANCE

It is important for cadets to be able to use a compass while navigating during expedition training. Each part of the compass has a specific name used to identify the part and its function. Cadets will rely on this information throughout navigation and expedition training.

Teaching Point 1 **Identify and Describe the Parts of the Compass**

Time: 5 min Method: Interactive Lecture

INTRODUCTION

The compass is an important tool used in wilderness navigation. It is not a replacement for good map techniques, but it is a trustworthy tool to compliment and complete navigation skills. A compass user must take care to be precise in their measurements with the compass. A small error in calculation or measurement can equal a significant error in the field.

A magnetic compass is still viable as a navigation aid, even with the advent of Global Positioning System devices, because it requires no batteries, and remains reliable year after year.

The Chinese discovered the orientating effect of magnetite, or lodestone as early as the 4th century BC. In 101 BC, Chinese ships reached the east coast of India for the first time, possibly with help from a magnetic compass. By the 10th century, they had developed a floating compass for use at sea. Western Europeans had developed one by 1187, Arabs by 1220, and Scandinavians by 1300. Columbus used a magnetic compass on his first trans-Atlantic trip in 1492 (see Figure 12-3-1).

CHINESE FLOATING COMPASS

A-CR-CCP-121/PT-001 (p. 5-33)

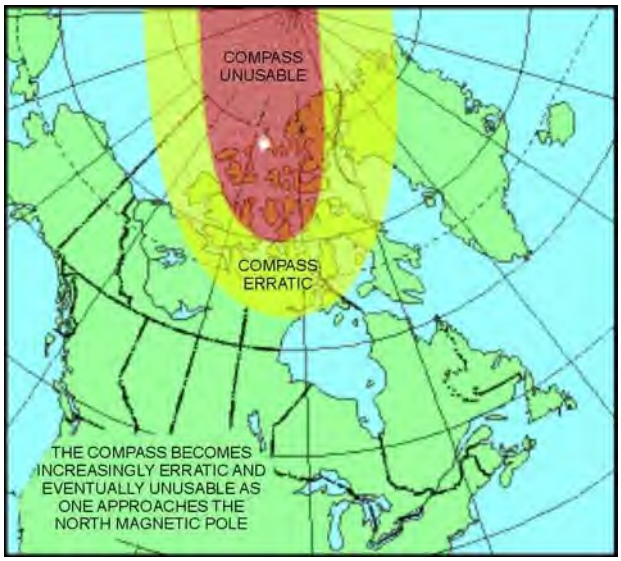
Figure 12-3-1 Chinese Floating Compass

HOW A COMPASS WORKS

Regardless of their intended purpose or the complexity of their construction, most compasses operate on the same basic principle. A small, elongated, permanently magnetized needle is placed on a pivot so that it may rotate freely in the horizontal plane. The Earth's magnetic field which is shaped approximately like the field around a simple bar magnet exerts forces on the compass needle, causing it to rotate until it comes to rest

in the same horizontal direction as the magnetic field. Over much of the Earth, this direction is roughly true north, which accounts for the compass's importance for navigation. The Earth has a north and a south magnetic pole. These magnetic poles correspond roughly with the actual geographical poles. The north magnetic pole is located at approximately 78.9°N latitude and 103.8°W, about 1000 km from the geological north pole.

The horizontal force of the magnetic field, responsible for the direction in which a compass needle is oriented, decreases in strength as one approaches the north magnetic pole – the compass starts to behave erratically, and eventually, as the horizontal force decreases even more, the compass becomes unusable.



A-CR-CCP-121/PT-001 (p. 5-33)

Figure 12-3-2 Earth's Magnetic Field

The nature of the magnetic field allows the magnetic north pole to shift geographic position about 5-10 cm per year. Other natural phenomena, like earthquakes, can change the magnetic field locally.

Teaching Point 2 **Identify and Describe the Parts of the Compass**

Time: 10 min Method: Interactive Lecture

Divide cadets into equal groups according to the number of compasses available. Starting with the compass opened, use the diagram in Figure 12-3-3 to identify the parts of the compass from the top (sight) to the bottom (screwdriver).

PARTS OF THE COMPASS

A – Sight. Located at the top of the compass cover, the sight is used to align an objective or bearing.

B – Compass Cover. The compass cover protects the compass dial and houses the sighting mirror.

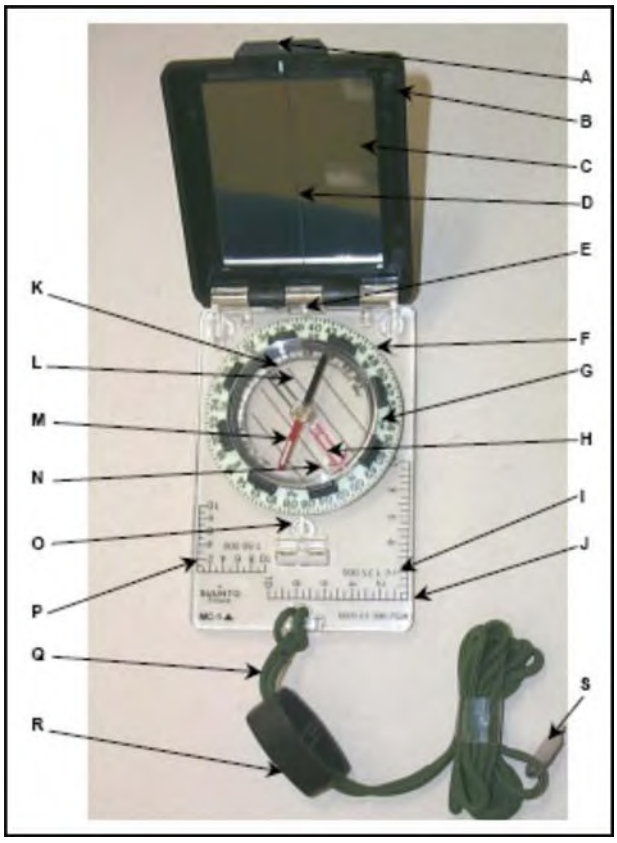
C – Sighting Mirror. The sighting mirror is used to see the compass dial while setting a bearing.

D – Sighting Line. The sighting line is used when aligning the objective or bearing.

E – Luminous Index Point. The luminous index point at the top of the compass dial is where a bearing is set and read from.

F – Compass Dial. The compass dial houses the magnetic needle, the orienting arrow and the declination scale on the inside and the dial graduations on the outside.

G – Dial Graduations. The compass dial is graduated in 50 mil divisions from 0 to 6400 mils, or 2 degree divisions from 0 to 360 degrees. The dial is rotated by hand.



A-CR-CCP-121/PT-001 (p. 5-33)

Figure 12-3-3 Compass

This Instructional Guide is good for use with compasses that have dial graduations in either mils or degrees.

H – Orienting Arrow. The red orienting arrow is located inside the compass dial and is used to line up the magnetic needle. The orienting arrow is always set at 00 mils/degrees.

I – Romer 1:25 000. This romer is used to measure GR on maps with a 1:25 000 scale.

J – Compass Base Plate. The compass base plate is a clear piece of flat plastic, to which the cover, dial and lanyard are attached.

K – Declination Scale. The declination scale is used to compensate for the variation of magnetic declination between the compass and the map being used.

L – Compass Meridian Lines. Compass meridian lines are black or red lines inside the compass dial and are used to line up the compass dial with the grid lines on a map.

M – Magnetic Needle. The magnetic needle spins freely and points to magnetic north. The south end of the compass needle is black and the north end, with a luminous patch, is red.

When the magnetic needle is lined up with the red orienting arrows, the mnemonic “Red in the Bed” is used to remember which end of the needle belongs between the arrows.

N – Luminous Orienting Points. There are two luminous orienting points located on either side of the orienting arrow.

O – Luminous Index Point. The luminous orienting point at the bottom of the compass dial is where a back bearing is read from.

P – Romer 1:50 000. This romer is used to measure GR on maps with a 1:50 000 scale.

Q – Safety Cord or Lanyard. The safety cord is used to fasten the compass to the body.

R – Adjustable Wrist Lock. The adjustable wrist lock is used to attach the compass to the wrist.

S – Screwdriver. The tiny screwdriver at the end of the safety cord is used to turn the screw to adjust the declination scale.

T – Declination Adjustment Screw. The declination adjustment screw is located on the back side of the compass dial and is used to adjust the declination scale (not shown).

When exposed to direct light, all luminous parts of the compass will glow in the dark making operating the compass at night possible.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. What is the maximum number of mils or degrees on the dial graduations?

Q2. What mnemonic is use for putting the magnetic needle between the orienting arrows?

Q3. What direction does the red part of the magnetic needle point?

ANTICIPATED ANSWERS

A1. 6400 mils or 360 degrees.

A2. “Red in the Bed”.

A3. Magnetic north.

Teaching Point 3 **Explain, Demonstrate and Have Cadets Practice Setting Declination**

Time: 10 min Method: Demonstration and Performance

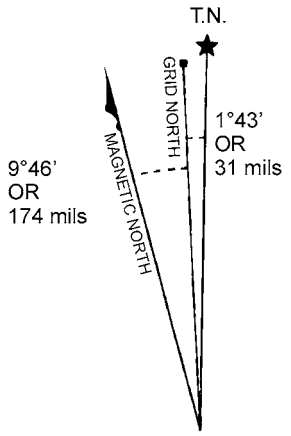
Explain and demonstrate setting declination as listed below, prior to cadets practicing this procedure. Cadets will only learn how to set declination on the compass with a value provided by the instructor. Calculating declination will be taught in Silver Star.

As mentioned in EO M222.02 (Describe Bearings), there is a difference in angle between true and magnetic north.

DECLINATION

Also called magnetic declination, it is the difference in angle measured in degrees and minutes between true north (map) and magnetic north (compass). Declination will change depending on geographic position and it also changes annually due to the shifting magnetic pole.

Declination is further described by stating whether the declination is east or west of true north. The declination for the map being used is calculated using the information in the declination diagram found in the margin of the map.



USE DIAGRAM ONLY TO OBTAIN NUMERICAL VALUES
APPROXIMATE MEAN DECLINATION 1982
FOR CENTRE OF MAP
ANNUAL CHANGE (INCREASING) 4.4'

A-CR-CCP-121/PT-001 (p. 5-39)

Figure 12-3-4 Declination Diagram

SETTING DECLINATION ON A COMPASS

The compass's declination scale must be set to compensate for the difference between true north and magnetic north. To do this we must first have the amount of declination in degrees east or west. Then, turn the compass over and look at the back of the dial.

From the zero point, using the screwdriver on the end of the safety cord, turn the declination screw to the right for west and to the left for east declination. Each small black line is two degrees.

When setting declination on a compass, it is easier to hold the screwdriver and turn the compass, especially in cold weather. The declination shall never be turned past 90° on the declination scale.

D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 12-3-5 Declination Screw

If you were to follow a compass bearing for 1 km without adjusting for declination, for every 1 degree not accounted for, you would be 178 metres to the left or right of the plotted bearing. This is how important declination is.

CONFIRMATION OF TEACHING POINT 3

Divide cadets into equal groups according to the number of compasses available. Giving a different declination setting each time, have cadets take turns setting the declination on a compass. Verify each setting before continuing to the next setting.

The cadets' participation in setting declination will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

QUESTIONS

Q1. What is the screwdriver on the compass used for?

Q2. What two directions are used to describe declination?

Q3. What direction is the declination adjusting screw turned to set an east declination?

ANTICIPATED ANSWERS

A1. To turn the declination adjusting screw.

A2. East and west.

A3. Left.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Compasses are used during navigation and trekking training exercises. Identification of the parts and the proper use of the compass is essential to ensuring accurate navigation.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

A2-036 A-CR-CCP-121/PT-001 D Cdts (2003). *Royal Canadian Army Cadet Reference Book*. Ottawa, ON: Department of National Defence.

A2-041 B-GL-382-005/PT-001 Canadian Forces. (2006). *Maps, Field Sketching, Compasses and the Global Positioning System*. Ottawa, ON: Department of National Defence.

ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 4

EO M222.04 – DETERMINE DISTANCE ALONG A ROUTE

Total Time: 90 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Using a topographical map of the local area, identify at least three different sets of points (A to B) to be measured during the activity in TP1.

Measure and identify 100 m to be used for establishing individual pace during TP2.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

Demonstration and performance was chosen for TP1 and TP2 as it allows the instructor to explain and demonstrate determining distance along a route while providing an opportunity for the cadets to practice these skills under supervision.

An interactive lecture was chosen for TP3 to clarify and emphasize the limitations of individual pacing.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson, the cadet shall be expected to determine distance along a route.

IMPORTANCE

It is important for cadets to be able to determine the distance along a route and pace a route as it allows them to calculate the distance between two points and to estimate the amount of time required to reach an objective or destination.

Teaching Point 1 **Explain, Demonstrate and Have Cadets Practice Determining Distance on a Map**

Time: 25 min Method: Demonstration and Performance

For this skill lesson, it is recommended that instruction take the following format:

1. Explain and demonstrate the complete skill while cadets observe.
2. Explain and demonstrate each step required to complete the skill. Monitor cadets as they imitate each step.
3. Monitor the cadets' performance as they practice the complete skill.

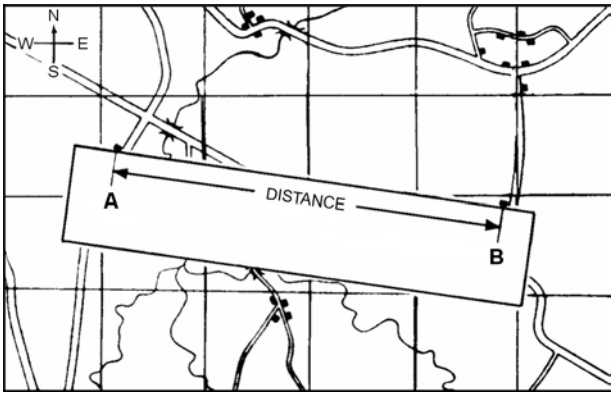
Note: Assistant instructors may be used to monitor cadet performance.

DETERMINING DISTANCE ON A MAP

Cadets can use their maps to measure the distance between two points (A and B) on the ground. All maps are drawn to scale; therefore, a specified distance on a map equals a specified distance on the ground. The scale of a map is printed at the top and bottom of each map (e.g. Scale 1:50 000). This means that one cm on the map equals 50 000 cm (500 m) on the ground.

There are two ways to determine distance on a topographical map – point to point and along a route.

Measuring Point to Point

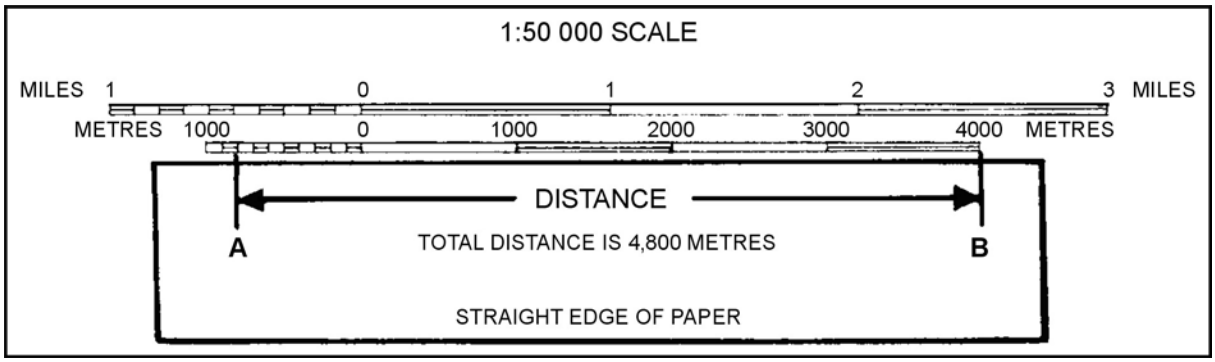


A-CR-CCP-121/PT-001 (p. 5-24)

Figure 12-4-1 Measure Distance Point to Point

To measure a distance point to point:

1. lay the straight edge of a piece of paper against the two points;
2. with a sharp pencil, mark the paper at the A (start) and B (finish) points;
3. lay the paper just under the scale bar (metres) and move the B mark backwards to each thousands mark until the A mark falls within the sub-divided thousands (hundreds) to the left of the zero; and
4. to calculate the total distance, add the number of thousands where the B mark is, plus the number of sub-divided thousands where the A mark is to the left of the zero.



A-CR-CCP-121/PT-001 (p. 5-25)

Figure 12-4-2 Calculate Distance

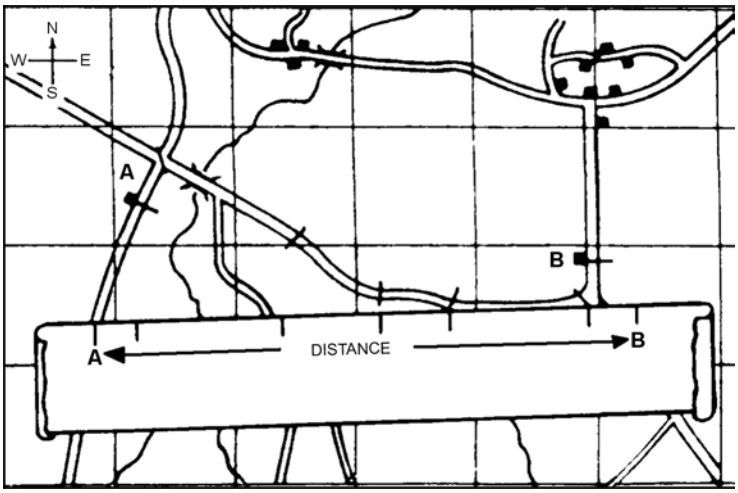
For a distance that is longer than 5000 m, measure the first 5000 m and mark the paper with a new line and label it ‘5000 m’. Place the new mark at the zero or thousands mark until the A mark fits within the sub-divided thousands bar. Add the total of that distance to the 5000 m and that will be the total distance.

Measuring Along a Route

Sometimes cadets need to find the distance between A and B around curves in a road or along a planned route.

To measure a distance along a route between two points:

1. lay the straight edge of a piece of paper against point A;
2. with a sharp pencil, mark point A on the paper and the map;
3. line up the paper with the edge of the road until you come to a curve and make another mark on the paper and on the map;
4. pivot the paper so that it continues to follow the road edge. Repeat until you reach point B;
5. mark your paper and the map at point B;
6. lay the paper just under the scale bar (metres) and move the B mark backwards to each thousands mark until the A mark falls within the sub-divided thousands to the left of the zero; and
7. add the number of thousands where the B mark is, plus the number of sub-divided thousands where the A mark is to the left of the zero, will determine the total distance.



A-CR-CCP-121/PT-001 (p. 5-25)

Figure 12-4-3 Measure Distance Along a Route

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. What are the two methods of measuring distance on a map?

Q2. What is the distance on the ground, for every cm measured on a 1:50 000 scale map?

Q3. What scale bar must be used when calculating the distance measured?

ANTICIPATED ANSWERS

A1. The two methods are point to point and along a route.

A2. One cm on the map equals 50 000 cm (500 m) on the ground.

A3. The metres scale bar is used when calculating distance.

Teaching Point 2 **Explain, Demonstrate and Have Cadets Practice Determining Distance Using Individual Pacing**

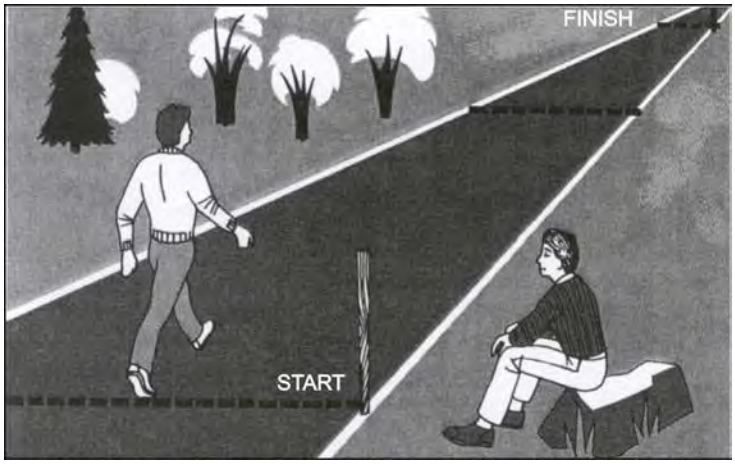
Time: 40 min Method: Demonstration and Performance

On a pre-measured 100 m course, arrange the cadets so they can see a demonstration and hear the explanation of individual pacing.

PACE COUNTING METHOD

The pace counting method (pacing) is used for measuring a given distance by counting every other step. Two steps equal one pace. Pacing is a very important skill in navigation, as each person has a different pace and needs to establish their pace before it can become a useful measurement tool. Pacing varies between individuals as it uses a natural stride – an average adult will pace about 60 to 70 paces in 100 m.

To determine an individual pace, practice taking uniform, comfortable steps over a measured distance (100 m) counting every second step of the dominant foot. Do this three to five times to get an average. This will be the individual's pace number and should be remembered.



Kjellstrom, B., Be Expert With Map & Compass, Hungry Minds, Inc. (p. 53)

Figure 12-4-4 Determining Distance Using Pacing

Remember, pacing is an approximation. A margin of error of 1–2 percent is considered reasonable (e.g. 10-20 m for every one km walked).

ACTIVITY

Time: 30 min

OBJECTIVE

The objective of this activity is to have cadets determine an individual pace.

RESOURCES

- Pre-measured 100 m, and
- Pen and paper.

ACTIVITY LAYOUT

Have defined start and finish lines clearly marked.

ACTIVITY INSTRUCTIONS

- Have the cadets start at one end of the course and pace to the other end.
- Have the cadets record their paces after each length of the course.
- After three to five lengths (approx. 25 min), have the cadets calculate the average of their pace (total paces divided by the number of times they paced).

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. What is pacing used to measure?

Q2. How many steps equal one pace?

Q3. What foot should be used to count paces?

ANTICIPATED ANSWERS

A1. It is used to measure distance.

A2. Two steps equal one pace.

A3. The dominant foot should be used to count paces.

Teaching Point 3 **Discuss Factors That Affect Pacing**

Time: 15 min Method: Interactive Lecture

Have cadets draw on personal experience to identify the factors that affect pacing.

FACTORS AFFECTING PACING

Pacing can be affected by different factors and numbers may vary. Some of the factors and the affect on individual pacing are:

- **Topography.** This is the most common factor. Walking through mud, thick bush and tall vegetation can shorten the paces.
- **Slopes.** Walking uphill will shorten the paces, while walking downhill can lengthen the paces.
- **Fatigue.** Pacing may change from natural in the morning, when cadets are rested, and shorter in the afternoon as they start to get tired.
- **Equipment.** Equipment could affect pacing, such as the wrong type of footwear. Too much or too little clothing and the amount of equipment being carried can shorten the paces.
- **Weather.** Heavy rain, wind velocity, temperature and snow can shorten the paces.

Pacing beads can be used to keep track of the distance walked. One bead is moved for every 100 m walked. If pacing beads are not available, stones can be used by moving them from one pocket to another to count every 100 m.

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

Q1. What is the most common factor affecting pacing?

Q2. What effect does walking downhill have on pacing?

Q3. How can fatigue affect pacing from morning to afternoon?

ANTICIPATED ANSWERS

A1. The most common factor affecting pacing is topography.

A2. Walking downhill will make the paces longer.

A3. Pacing will be natural in the morning and shorter in the afternoon.

END OF LESSON CONFIRMATION

The cadets' participation in the pacing activity will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Being able to determine distance along a route is an important aspect of navigation training as it allows cadets to have an idea of distance travelled, distance to be travelled and a general sense of their location at all times while navigating.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

A2-041 B-GL-382-005/PT-001 Canadian Forces. (2006). *Maps, Field Sketching, Compasses and the Global Positioning System*. Ottawa, ON: Department of National Defence.

C0-011 Canadian Orienteering Federation. (1985). *Orienteering Level Two Coaching Certification*. Ottawa, ON: Canadian Orienteering Federation.

C2-041 (ISBN 0-07-136110-3) Seidman, D. and Cleveland, P. (1995). *The Essential Wilderness Navigator*. Camden, ME: Ragged Mountain Press.

C2-045 (ISBN 1-4018-0961-8) Ford, H.L. (2003). *Landscape Surveying*. Florence, KY: Thomas Delmar Learning.

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ROYAL CANADIAN ARMY CADETS

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INSTRUCTIONAL GUIDE

SECTION 5

EO M222.05 – ORIENT A MAP USING A COMPASS

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Calculate the declination for the map being used prior to delivering this lesson.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

Demonstration and performance was chosen for this lesson as it allows the instructor to explain and demonstrate orienting a map using a compass while providing an opportunity for the cadets to practice this skill under the supervision of an instructor.

INTRODUCTION

REVIEW

The review for this lesson is from EO M222.04 (Determine Distance Along a Route).

QUESTIONS

Q1. What are the two methods of measuring distance on a map?

Q2. How many steps equal one pace?

Q3. What is the most common factor affecting pacing?

ANTICIPATED ANSWERS

A1. Point to point and along a route.

A2. Two steps equal one pace.

A3. Topography.

OBJECTIVES

By the end of this lesson the cadet shall be expected to orient a map using a compass.

IMPORTANCE

It is important for cadets to know how to orient a map using a compass so they can accurately align features found on the map with true north when navigating a long distance.

Teaching Point 1 **Explain, Demonstrate and Have Cadets Practice Orienting a Map Using a Compass**

Time: 25 min Method: Demonstration and Performance

Arrange the cadets so they can see the demonstration and hear the explanation of orienting a map using a compass as listed below.

As previously taught during Green Star navigation, orienting a map by inspection means turning the map so that, visually, the map directions and map detail correspond with details on the ground. When you are unable to identify details on the map with those on the ground (e.g. you are in a hilly area), or you need to orient the map more accurately when navigating a long distance, a compass must be used.

D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 12-5-1 Set Declination

D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 12-5-2 Set Compass to 00

D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 12-5-3 Red in the Bed

For this skill lesson, it is recommended that instruction take the following format:

1. Explain and demonstrate the complete skill while cadets observe.
2. Explain and demonstrate each step required to complete the skill. Monitor cadets as they imitate each step.
3. Monitor the cadets' performance as they practice the complete skill.

Note: Assistant instructors may be employed to monitor cadet performance.

To orient a map using a compass:

1. set the current declination on the compass;
2. set the compass dial to read 00 (zero) mils or 0 degrees (north);
3. lay the compass flat on the map with the cover open;
4. point the mirror to North (top of the map);
5. align one side of the base plate with an easting line; and
6. turn the map and compass together until the red end of the magnetic needle is over the orienting arrow.

The mnemonic used to remember putting the magnetic needle over the orienting arrow is "Red in the Bed".

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. When would you orient a map by compass instead of by inspection?

Q2. What number is the compass dial set to read?

Q3. What is the mnemonic for putting the magnetic needle over the orienting arrow?

ANTICIPATED ANSWERS

A1. When unable to identify details on the map or a more precise oriented map is required.

A2. The compass dial is set to 00 mils or 0 degrees.

A3. Put red in the bed.

END OF LESSON CONFIRMATION

QUESTIONS

Q1. What is the first step to orienting a map using a compass?

Q2. What direction is the compass mirror to be pointed on the map?

Q3. How is the map aligned with the compass?

ANTICIPATED ANSWERS

A1. Set the declination on the compass.

A2. It is to be pointed to the top of the map or north.

A3. Line up one side of the compass base plate with an easting line.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Knowing how to orient a map using a compass is important as it enables you to accurately align the map with true north. It also aids cadets in having a general idea of their location during expedition training.

INSTRUCTOR NOTES/REMARKS

This lesson will be conducted with PO M223 (Participate in a Two Day Hike with Some Class 2 Terrain and Obstacles).

REFERENCES

A2-041 B-GL-382-005/PT-001 Canadian Forces. (2006). *Maps, Field Sketching, Compasses and the Global Positioning System*. Ottawa, ON: Department of National Defence.

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ROYAL CANADIAN ARMY CADETS

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INSTRUCTIONAL GUIDE

SECTION 6

EO M222.06 – FOLLOW A MAGNETIC BEARING POINT TO POINT

Total Time: 60 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Prior to this lesson, using a topographical map, prepare a navigation route, consisting of a minimum of six legs no greater than 100 m apart.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

Demonstration and performance was chosen for TP1 and TP2 as it allows the instructor to explain and demonstrate following a magnetic bearing point to point while providing an opportunity for the cadets to practice following a bearing point to point under supervision.

A practical activity was chosen for TP3 as it is an interactive way to allow cadets to experience following a magnetic bearing point to point in a safe, controlled environment. This activity contributes to the development of navigation skills and knowledge in a fun and challenging setting.

INTRODUCTION

REVIEW

The review for this lesson is from EO M222.05 (Orient a Map Using a Compass).

QUESTIONS

Q1. What is the first step to orienting a map using a compass?

Q2. What direction is the compass mirror to be pointed on the map?

Q3. How are the map and compass aligned together?

ANTICIPATED ANSWERS

A1. Set the declination on the compass.

A2. The top of the map or north.

A3. Line up one side of the compass base plate with an easting line.

OBJECTIVES

By the end of this lesson the cadet shall be expected to follow a magnetic bearing point to point.

IMPORTANCE

It is important for cadets to know how to determine the magnetic bearing of a prominent object, take a magnetic bearing on a map and follow a magnetic bearing so they will be able to navigate a route during orienteering and expedition training.

Teaching Point 1 **Practice Determining the Magnetic Bearing of a Prominent Object**

Time: 10 min Method: Demonstration and Performance

Divide cadets into equal groups according to the number of compasses available. Arrange the cadets so they can see the demonstration and hear the explanation of determining the magnetic bearing of a prominent object as listed below.

A compass can be used to identify the cardinal points such as north and south, the direction of travel and the bearing from one's current location to a prominent object. However, the ability to take a magnetic bearing of a prominent object and to use that information to help identify one's general location can save hours when trekking. A magnetic bearing is a quick method for describing the direction of travel.

To build navigation skills, it is useful to have cadets approximate their bearings prior to taking a bearing with the compass.

A prominent object is something that is large and easily seen (e.g. church or hilltop).

For this skill lesson, it is recommended that instruction take the following format:

1. Explain and demonstrate the complete skill while cadets observe.
2. Explain and demonstrate each step required to complete the skill. Monitor cadets as they imitate each step.
3. Monitor the cadets' performance as they practice the complete skill.

Note: Assistant instructors may be employed to monitor cadet performance.

A-CR-CCP-121/PT-001 (p. 5-42)

Figure 12-6-1 Determining a Magnetic Bearing

To determine the magnetic bearing of a prominent object:

1. Check and set the pre-determined declination on the compass.
2. Hold the compass at eye level, at arms length, and face the prominent object.
3. Aim at the object using the compass sight, ensuring the sighting line is in line with the index pointer.
4. Adjust the compass cover so the compass dial is seen in the sighting mirror.
5. Look in the mirror and turn the compass dial until the magnetic needle is over the orienting arrow (red in the bed).
6. Read the number on the compass dial at the luminous index pointer. The magnetic bearing of the prominent object is read at the luminous index pointer.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. What is a magnetic bearing?

Q2. Where must the magnetic needle be when looking in the mirror and turning the compass dial?

Q3. From where is the magnetic bearing of the prominent object read?

ANTICIPATED ANSWERS

A1. A magnetic bearing is a bearing that is measured between two points using a compass.

A2. The magnetic needle must be over the orienting arrow (red in the bed).

A3. The magnetic bearing is read from the luminous index pointer.

Teaching Point 2 **Explain, Demonstrate and Have the Cadets Practice Taking a Magnetic Bearing on a Map**

Time: 15 min Method: Demonstration and Performance

The ability to measure a bearing from a map allows cadets to plan routes or activities before going into the field, and allows an easy method of communicating information about movement or location. When a compass is adjusted to compensate for declination, it will provide the equivalent of a magnetic bearing. Magnetic bearings may be set on the compass without further conversions.

For this skill lesson, it is recommended that instruction take the following format:

1. Explain and demonstrate the complete skill while cadets observe.
2. Explain and demonstrate each step required to complete the skill. Monitor cadets as they imitate each step.
3. Monitor the cadets' performance as they practice the complete skill.

Note: Assistant instructors may be employed to monitor cadet performance.

D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 12-6-2 Measuring a Magnetic Bearing on a Map

To measure a magnetic bearing on a map:

Prior to measuring a magnetic bearing on a map it is good practice to first estimate the bearing by drawing a quick compass rose and looking at where the bearing would be on the compass rose. This serves as a good check to ensure the cadet has not accidentally measured the back bearing.

1. Set the pre-determined declination on the compass.
2. Identify and mark the start (point A) and finish (point B) points on a map.
3. Draw a plotting ray from point A to point B.
4. Lay the fully opened compass with the edge of the compass base plate along the plotting ray, in the direction of travel (point A to point B).
5. Hold the compass in place, rotate the compass dial so that the compass meridian lines align with the easting lines on the map, ensuring north on the dial indicates north on the map.
6. Read the number on the compass dial at the luminous index pointer.

The magnetic bearing is read at the luminous index pointer.

If the bearing is taken from point B to point A, the compass will be pointing 180 degrees or 3200 mils in the exact opposite direction of travel wanted. This is also called a back bearing.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. What is the first step to measuring a magnetic bearing on a map?

Q2. What direction along the plotting ray must the compass be laid?

Q3. With what lines on the map must the compass meridian lines align?

ANTICIPATED ANSWERS

A1. Setting the pre-determined declination on the compass.

A2. In the direction of travel – point A to point B.

A3. The compass meridian lines must align with the map easting lines.

Teaching Point 3 **Follow a Magnetic Bearing Point to Point**

Time: 25 min Method: Practical Activity

ACTIVITY

OBJECTIVE

The objective of this activity is to have cadets follow a magnetic bearing point to point.

RESOURCES

- Topographical map (one per group), and
- Compass (one per group).

ACTIVITY LAYOUT

Navigation route consisting of a minimum of six legs, no greater than 100 m apart in distance.

ACTIVITY INSTRUCTIONS

1. Divide cadets in groups of four to six.
2. Issue each group with a map and compass.
3. Have a different cadet in each group take a magnetic bearing on a map during daylight.
4. Have each cadet take a turn leading the group, while following a magnetic bearing point to point.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 3

The cadets' participation in following a magnetic bearing point to point will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

QUESTIONS

Q1. What is the definition of a prominent object?

Q2. What is the definition of a magnetic bearing?

Q3. What numbers indicate the magnetic bearing?

ANTICIPATED ANSWERS

A1. A prominent object is something that is large and easily seen (e.g. church or hilltop).

A2. A magnetic bearing is a bearing that is measured between two points using a magnetic compass.

A3. The numbers shown at the luminous index pointer indicate the magnetic bearing.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Being able to determine the magnetic bearing of a prominent object, take a magnetic bearing on a map and follow a magnetic bearing will assist the cadets in navigating a route during orienteering and expedition training.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

A2-041 B-GL-382-005/PT-001 Canadian Forces. (2006). *Maps, Field Sketching, Compasses and the Global Positioning System*. Ottawa, ON: Department of National Defence.

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INSTRUCTIONAL GUIDE

SECTION 7

EO C222.01 – PRACTICE NAVIGATION USING A MAP AND COMPASS

Total Time: 90 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Review the activities in TP2 to confirm local resources required and prepare the route to be used to include GRs and bearings.

If assistant instructors are not available, determine a safety bearing to a known location.

Prepare brain teaser clues/puzzle navigation pieces (word, picture or phrase) for each checkpoint.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TP1 to give direction on procedures and to illustrate the application of rules for the navigation exercise.

A practical activity was chosen for TP2 as it is an interactive way to allow cadets to experience navigation in a safe, controlled environment. This activity contributes to physical fitness and to the development of navigation skills and knowledge in a fun and challenging setting.

A group discussion was chosen for TP3 as it allows the cadets to interact with their peers and share their knowledge, experiences, opinions, and feelings about navigation training.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall have practiced navigation using a map and compass.

IMPORTANCE

It is important for cadets to practice navigation using a map and compass as it is a skill set that must be practiced in order to build confidence and accuracy. Participation in these activities contributes to the development of navigation skills and knowledge in a fun and challenging setting. Cadets will rely on this skill set throughout navigation and expedition training.

Teaching Point 1 **Conduct a Safety Briefing**

Time: 10 min Method: Interactive Lecture

Arrange the cadets so they can see any demonstrations and hear the safety briefing prior to participating in the activity.

This briefing is being conducted to pass on vital information and to answer any questions regarding the safe conduct of a navigation activity, to include:

- actions that can be taken if they become lost, may include:
  - returning to the previous checkpoint;
  - using a radio if available; or
  - following a safety bearing to a known location;
- a time limit for the activity of 55 minutes;
- boundaries set for the conduct of the activity;
- rules and safety procedures for the activity; and
- a narrative of the specific activity being conducted.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. What actions shall be taken if a group becomes lost?

Q2. What is the time limit for this activity?

Q3. What are the boundaries for this activity?

ANTICIPATED ANSWERS

A1. If a group becomes lost, they should return to the previous checkpoint or follow a safety bearing to a known location.

A2. This activity will last no more than 55 minutes.

A3. The answers to this question will vary based on the local area being used.

Teaching Point 2 **Participate in a Navigation Activity**

Time: 55 min Method: Practical Activity

Select one of the following activities to be conducted in the time allocated. If time permits, try more than one activity. Prepare for each activity in advance using resources available.

NAVIGATION BRAIN TEASER

Using a map and compass, cadets will navigate to a predetermined point on the map. The course will consist of a minimum of six legs, approximately 100 to 200 m in length. At each point the cadets will be given simple clues (magnetic bearing, GR, or distance) directing them to the next checkpoint. The team that locates the most checkpoints and has the fastest time is the winning team.

COMPASS WORK AND PACING

Using a map and compass, cadets will follow a predetermined bearing on the map. The course will consist of a minimum of six legs, approximately 100 to 200 m in length. Following the bearing provided, each team will determine the number of paces and distance between each checkpoint. The team with the most accurate measurements of distance between each checkpoint and the fastest time is the winning team.

PUZZLE NAVIGATION

Using a map and compass, cadets will navigate along a predetermined route. At each checkpoint on the route, cadets will collect a puzzle piece. The puzzle could be a picture, word or phrase. The first team to collect all puzzle pieces, cross the finish line and solve the puzzle is the winning team.

This sample word puzzle when unscrambled will spell “CADET”:

- at checkpoint 1 the group collects a “D”;
- at checkpoint 2 the group collects a “T”;
- at checkpoint 3 the group collects a “A”;
- at checkpoint 4 the group collects a “C”;
- at checkpoint 5 the group collects a “E”;

An example of a picture puzzle can be found at Annex E, to be completed as follows:

1. photocopy one picture for each team;
2. cut the picture into pieces equal to the number of checkpoints;
3. label each piece of the puzzle with the same team number;
4. at each checkpoint the group will collect the same numbered puzzle piece; and
5. at the end of the navigation the group will assemble the puzzle.

ACTIVITY 1

OBJECTIVE

The objective of the Navigation Brain Teaser activity is to have the cadets, as members of a team, participate in point to point navigation.

RESOURCES

- Topographical map (one per team);
- Compass (one per team); and
- A predetermined navigation route.

ACTIVITY LAYOUT

- Have defined start and finish lines clearly marked.
- Position a clue at each point directing groups to the next point.

ACTIVITY INSTRUCTIONS

1. Divide the cadets into groups of four to six.
2. Issue each group a map and compass.
3. Give the clue for the first checkpoint to the cadet leading the group.
4. Start groups at two-minute intervals and record start times.
5. On a sheet of paper, have cadets record each clue in the order they complete each checkpoint.
6. Collect sheets and record the finish time for each group.

If available, use an assistant instructor at each checkpoint to give cadets the next clue, answer questions and to prevent groups from following each other or sharing answers.

SAFETY

N/A.

ACTIVITY 2

OBJECTIVE

The objective of the Compass Work and Pacing activity is to have cadets, as members of a team, participate in pacing and determining distance during navigation.

RESOURCES

- Topographical map (one per team);
- Compass (one per team); and

- A predetermined pacing/navigation route.

ACTIVITY LAYOUT

Have defined start and finish lines clearly marked.

ACTIVITY INSTRUCTIONS

1. Divide the cadets into groups of four to six.
2. Issue each group a map and compass.
3. Have cadets transfer the course to be followed onto the maps.
4. Start groups at two-minute intervals and record start times.
5. On a sheet of paper, have cadets record paces and distance for each leg they complete.
6. Collect sheets and record the finish time for each group.

If available, use an assistant instructor at each checkpoint to answer questions and to prevent groups from following each other or sharing answers.

SAFETY

N/A.

ACTIVITY 3

OBJECTIVE

The objective of the Puzzle Navigation activity is to have the cadets, as members of a team, participate in point to point navigation.

RESOURCES

- Topographical map (one per team);
- Compass (one per team);
- Puzzle pieces (one per team, per checkpoint); and
- A predetermined navigation route.

ACTIVITY LAYOUT

- Have defined start and finish lines clearly marked.
- Position identical puzzle pieces at each checkpoint.

ACTIVITY INSTRUCTIONS

1. Divide the cadets into groups of four to six.
2. Issue each group a map and compass.

3. Start groups at two-minute intervals and record start times.
4. Have the cadets collect one piece of the puzzle from each checkpoint.
5. Once across the finish line, cadets will solve the puzzle and give the answer to the instructor.

If available, use an assistant instructor at each checkpoint to give cadets the puzzle piece, to answer questions and to prevent groups from following each other or sharing answers.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 2

The cadets' participation in the navigation activities will serve as the confirmation of this TP.

Teaching Point 3 **Conduct a Debriefing**

Time: 15 min Method: Group Discussion

GROUP DISCUSSION

TIPS FOR ANSWERING/FACILITATING DISCUSSION

- Establish ground rules for discussion, e.g. everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Manage time by ensuring the cadets stay on topic.
- Listen and respond in a way that indicates you have heard and understood the cadet. This can be done by paraphrasing their ideas.
- Give the cadets time to respond to your questions.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer. Cadets must also have the option to pass if they wish.
- Additional questions should be prepared ahead of time.

SUGGESTED QUESTIONS

Q1. What navigation skills were required to complete the activity?

Q2. What was the hardest part of the activity to complete?

Q3. What was the most exciting part of this activity?

Q4. How will the activity help you with navigation in the future?

Other questions and answers will develop throughout the group discussion. The group discussion should not be limited to only those suggested.

Reinforce those answers given and comments made during the group discussion, ensuring the teaching point has been covered.

CONFIRMATION OF TEACHING POINT 3

The cadets' participation in the group discussion will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in the navigation activities as well as the group discussion will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Navigation using a map and compass is a skill that can also be used in situations outside the Cadet Program. True proficiency in the skill used during these activities can only be achieved by practicing. These activities allow the cadets the opportunity to develop their navigation skills and knowledge in a fun and challenging setting.

INSTRUCTOR NOTES/REMARKS

The intent of this activity is to give the cadet experience navigating with a map and compass, determining distance and following a bearing from point to point.

This activity may be conducted using any available map (topographical, orienteering or locally produced).

REFERENCES

A2-041 B-GL-382-005/PT-001 Canadian Forces. (2006). *Maps, Field Sketching, Compasses and the Global Positioning System*. Ottawa, ON: Department of National Defence.

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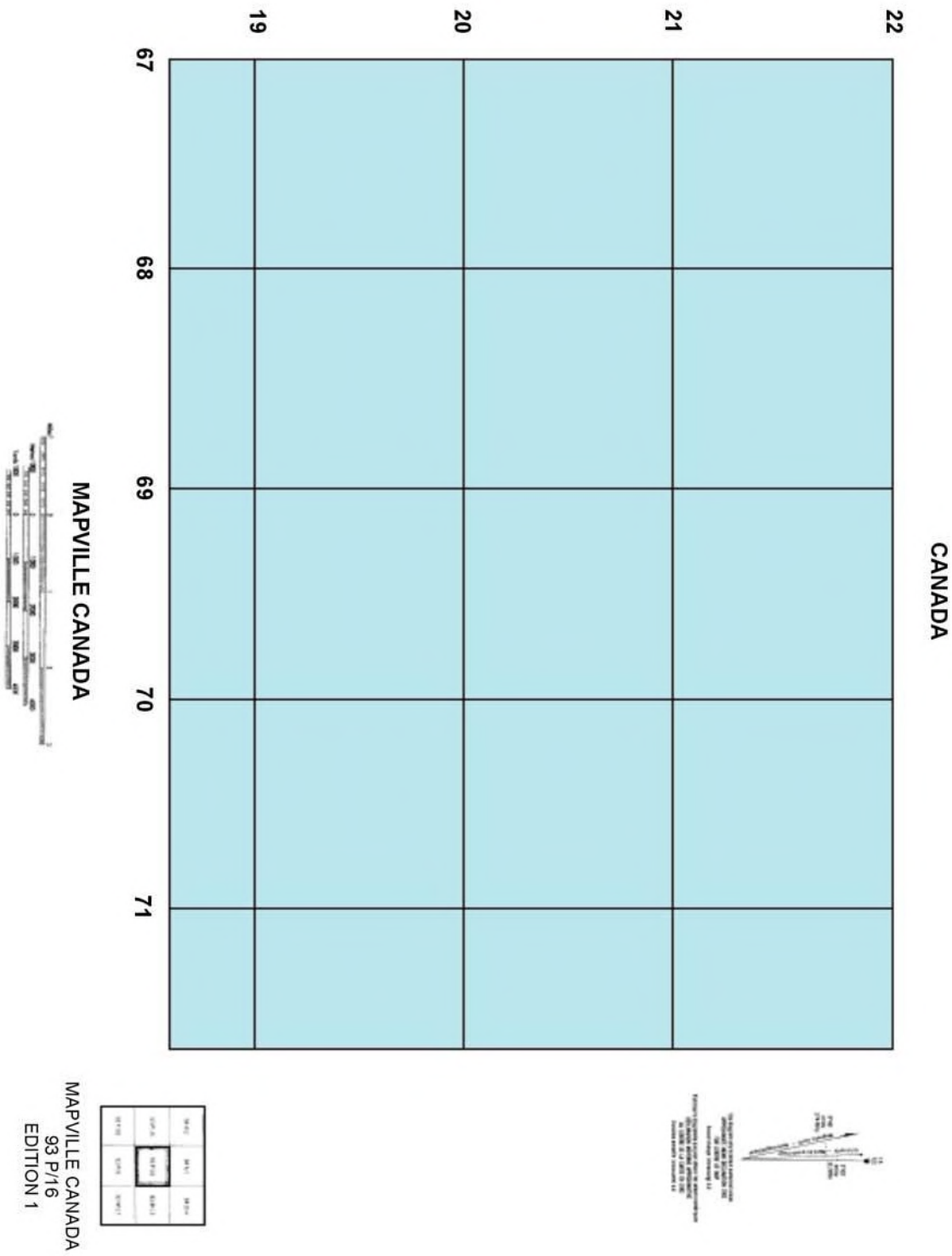
MAP FOLDING ACTIVITY SHEET



D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 12A-1 Map Folding Activity Sheet

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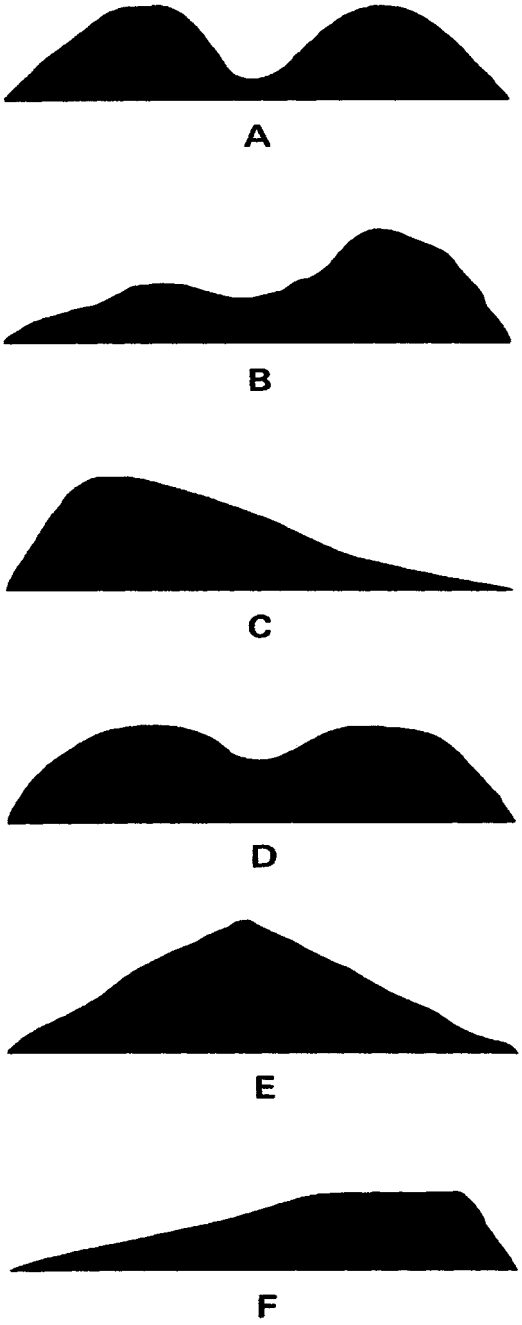
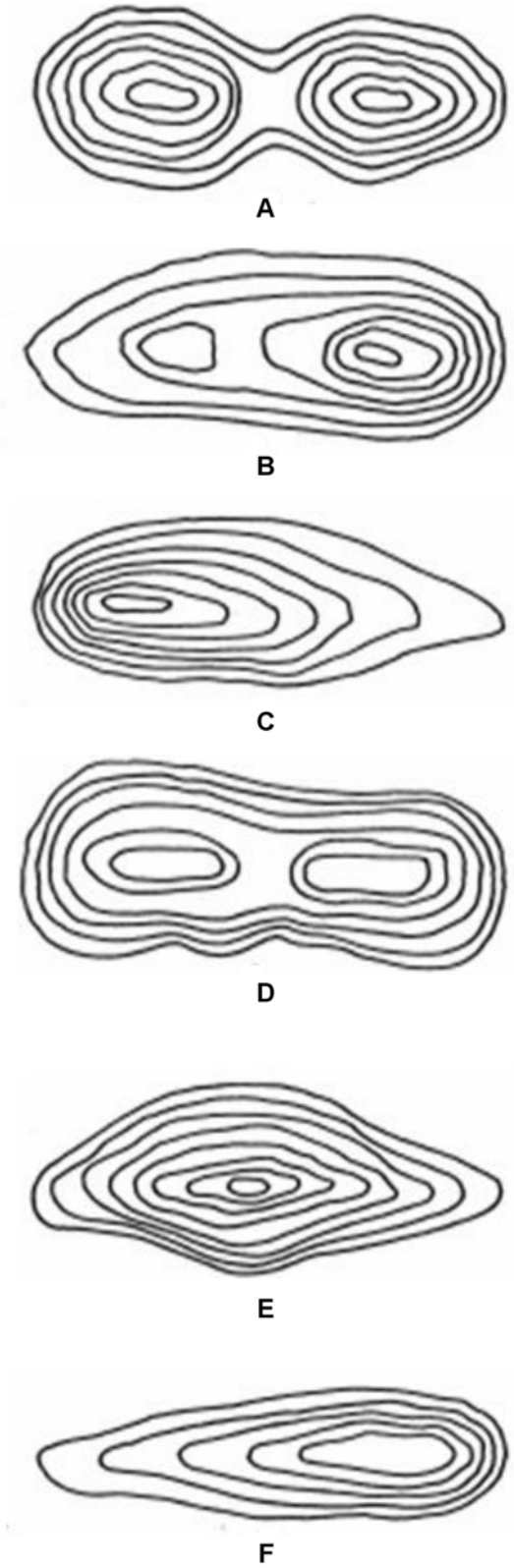
LAND FEATURES



D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 12B-1 Contour Features

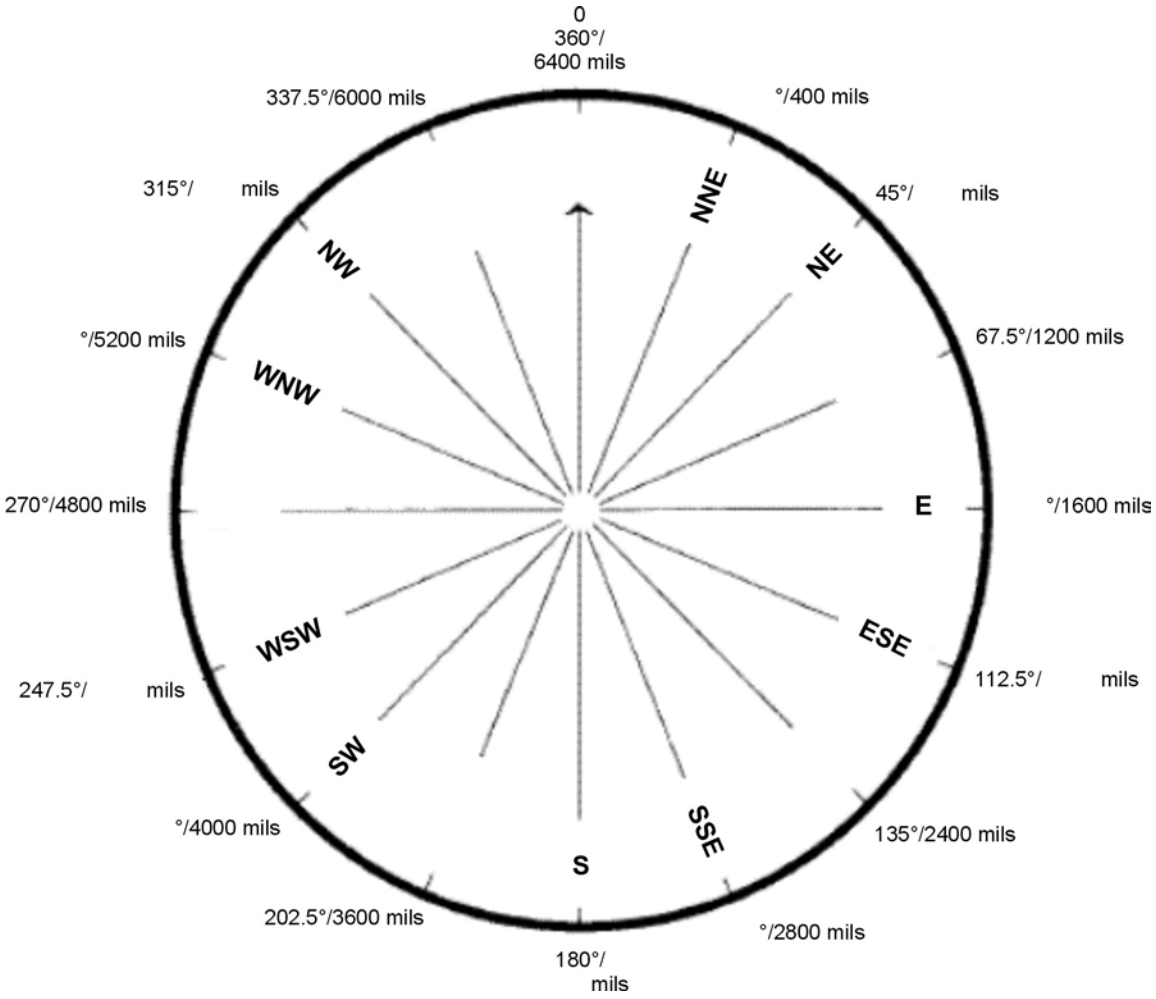


D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 12B-2 Contour Features Examples

COMPASS ROSE ACTIVITY SHEET

Fill in the missing detail for each point of the compass rose



D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 12C-1 Compass Rose Activity

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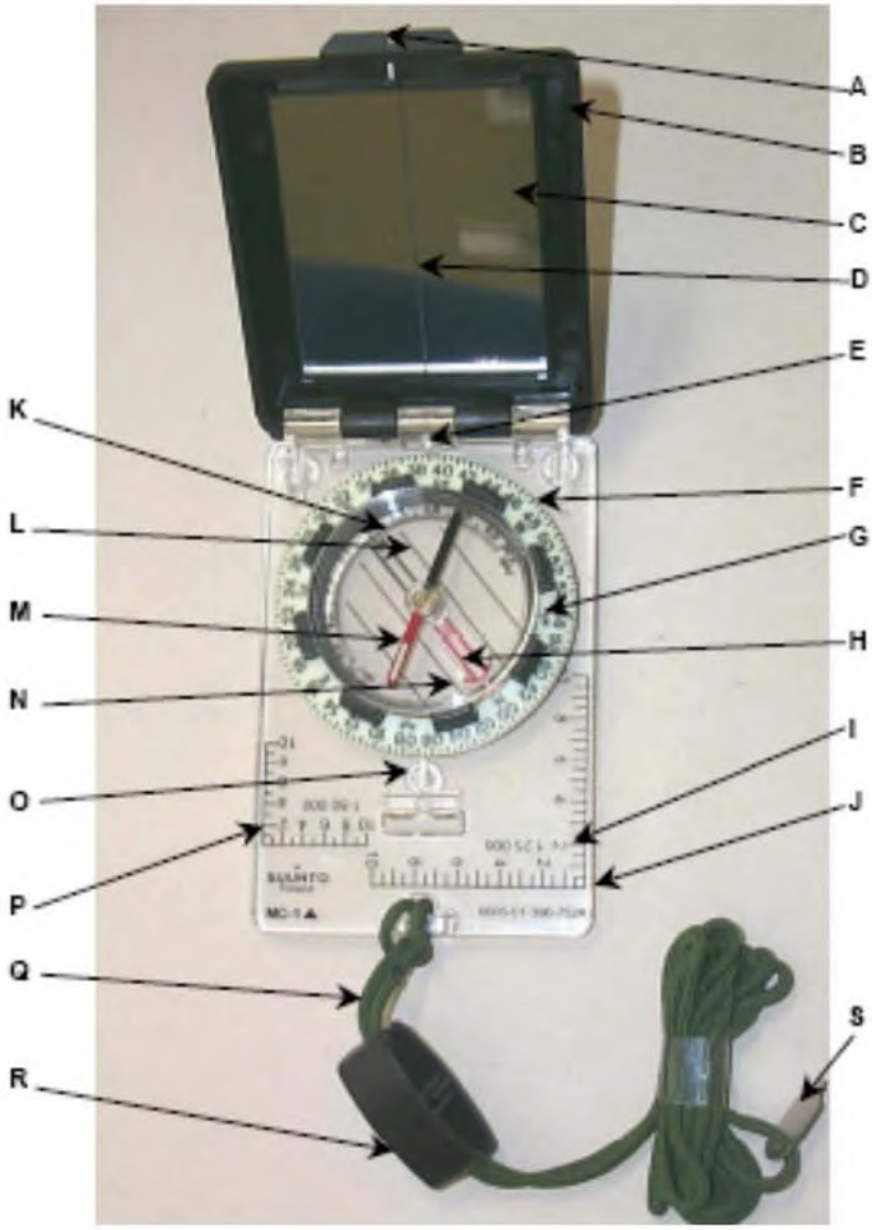
COMPASS PARTS



LEGEND

A - Sight	**B** - Compass Cover	**C** - Sighting Mirror	**D** - Sighting Line
E - Luminous Index Point	**F** - Compass Dial	**G** - Dial Graduations	**H** - Orienting Arrows
I - Romer 1:25,000	**J** - Compass Base Plate	**K** - Declination Scale	**L** - Compass Meridian lines
M - Magnetic Needle	**N** - Luminous Orienting Points	**O** - Luminous Index Point	**P** - Romer 1:50,000
Q - Safety Cord or Lanyard	**R** - Adjustable Wrist Lock	**S** - Screwdriver	**T** - Declination Adjusting Screw (not shown)

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PUZZLE NAVIGATION

D Cdts, 2007, Ottawa, ON: Department of National Defence

Figure 12E-1 Puzzle Navigation

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CHAPTER 13

PO 223 – HIKE ALONG A ROUTE AS PART OF AN OVERNIGHT EXERCISE

ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 1

EO M223.01 – PREPARE FOR TREKKING

Total Time: 60 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Review EO M123.01 (Select Trekking Gear) to prepare for the activity in TP1.

Review the activity for TP1 and set up the classroom as per the activity instructions.

Photocopy the handouts at Annexes A, B and D for each cadet. Prepare the cards at Annex A for the activity in TP1.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An in-class activity was chosen for TP1 and TP2 as it is an interactive way to present a personal kit list.

An interactive lecture was chosen for TP3 and TP4 to introduce preparing for a trek.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to prepare a personal kit list and physically prepare before a trek.

IMPORTANCE

It is important for cadets to know how to organize and prepare for a trek – selecting trekking gear, creating an important item lists and identifying the physical demands of a trek. Trekking is one component of expeditions. By being prepared for such an activity, cadets will be better equipped to meet the mental and physical challenges of an expedition.

Teaching Point 1 **Conduct an Activity on Trekking Gear**

Time: 15 min Method: In-class Activity

ACTIVITY

OBJECTIVE

The objective of this activity is to review the characteristics of trekking gear.

RESOURCES

For this activity, it is recommended to have two cadets help monitor the game.

- Pre-cut trekking gear cards located at Annex A (one set per team);
- Flip chart paper (one sheet per team); and
- Tape.

ACTIVITY LAYOUT

Set up two flipchart sheets side by side labelled Team A and Team B.

ACTIVITY INSTRUCTIONS

1. Divide the cadets into two teams.
2. Have each team line up in front of their flipchart sheet.
3. The first cadet on each team will draw a trekking gear card.
4. Have the cadet read the characteristics on the card to their team. The team must guess what item the card is describing.
5. When the team guesses the item correctly, the cadet will go and post the card on the team's flipchart sheet.
6. The rest of the team (one after the other) will draw a card and repeat steps 4 and 5.
7. The first team that has all their cards posted, wins and can go on a trek.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 1

The cadet's participation in the activity will serve as the confirmation of this TP.

Teaching Point 2 **Conduct an Activity to Identify Permanent Items and a Personal Kit List**

Time: 15 min Method: In-class Activity

Before going on a trek, it is essential that no extra equipment is carried. Avoid over packing to reduce the weight of the backpack. A checklist is a good way of keeping track of what is needed. After each trek, the list should be amended to reflect what was used and in what quantity in order to be prepared for the next time.

Before going on a trek, the following considerations will help when making a checklist:

- the distance (long distance treks determine the equipment one should bring);
- the type of terrain;
- the weather forecast; and
- the cadet's interests (photography, rock climbing, etc.).

Raingear and a first aid kit should always be part of your kit list.

PERMANENT ITEMS LIST

Personal Items. A personal items list will not change much from trek to trek. The following should be part of the list:

- personal hygiene kit (toothbrush and paste, biodegradable soap, razor, comb or brush, towel, toilet paper and women's sanitary supplies);
- personal medication;
- insect repellent;
- lip balm;
- cookware and utensils;
- pen and paper (notebook); and
- money.

Six Essential Items. The following items can be used to avoid difficult situations and prepare for the unexpected:

- a pocket knife or multi-tool;
- a water container;
- extra food (energy bars, dried fruit or nuts, hard candies, etc.);
- extra clothing (warm clothing and raingear);
- sunscreen and sunglasses; and
- a survival kit, to include:
    - a water filter;

- a flashlight;
- waterproof matches;
- a signalling device (e.g. whistle and mirror); and
- a first aid kit.

It is a good idea to layout all equipment before packing it. It allows the person to see what is there and if something is missing.

It is also a good way to see which items need to be put in plastic bags to keep them dry.

Last Minute Checklist. A checklist of things to do before a trek should always be kept up to date. The following should be considered:

- Fill water containers.
- Check equipment (cooking devices, boots, review the six essential items).
- Check for an updated weather forecast.
- Check trail conditions with local management or park office.

It is always a good idea to:

- make copies of the itinerary and leave one with local land management or the park office; and
- tell a reliable friend of the itinerary and what to do and who to contact if one does not return as scheduled.

ACTIVITY

Time: 10 min

OBJECTIVE

The objective of this activity is to identify items to include in a personal items list based on a weather forecast.

RESOURCES

- Pen; and
- Answer sheet and scenarios located at Annex B.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Divide the cadets into groups of four.
2. Distribute one scenario (located at Annex B) to each group. It is acceptable for more than one group to have the same scenario.

3. Have cadets select the equipment from the list that they would take on a trek depending on the weather forecast on their sheet.

4. Give them five minutes to identify their items. Review the answers as a group. If there is a mistake, explain why it is not the best choice. The answer key is located at Annex C.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. What are some considerations that help a cadet make a checklist?

Q2. Name three items that fall under a permanent list.

Q3. Name three items that fall under the six essential list.

ANTICIPATED ANSWERS

A1. Some considerations are the distance, the type of terrain, the weather forecast and the cadet's interest.

A2. Personal hygiene kit, personal medication, insect repellent, lip balm, cookware and utensils, pen, paper or notebook and money are items that fall under the permanent list.

A3. Pocket knife or multi-tool, water container, water filter, flashlight, extra food, extra clothing, waterproof matches, sunscreen, sunglasses, signalling device and first aid kit are items that fall under the six essential list.

Teaching Point 3 **Discuss the Physical Demands of a Trek**

Time: 5 min Method: Interactive Lecture

In order to facilitate the trek, one should have the physical strength to trek successfully. By working toward improving cardiovascular endurance, strength and balance, one should have fewer difficulties completing an all day trek.

Cardiovascular Endurance. Improving cardiovascular endurance means to strengthen the heart, lungs and leg muscles. It will enhance the body's ability to deliver larger amounts of oxygen to working muscles. By doing so, the muscles will develop a greater capacity to use oxygen and it will be easier to recover from the stress of exercise. It will also increase energy level and allow the cadet to hike longer on uneven terrain.

Strength. Improving strength means developing muscle tone. By doing so, endurance will increase. It will make a difference on the distance of the trek and when crossing obstacles with a backpack. Greater strength means the trekker will hike longer and, with little difficulty, across uneven terrain.

Balance. Improving balance means improving physical skills and increasing body control and awareness. It improves stability and helps avoid injuries. Good balance improves walking techniques on uneven terrain and helps when crossing obstacles.

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

Q1. What parts of the body are strengthened by cardiovascular activities?

Q2. What does improving strength mean?

Q3. What can you avoid if you improve your balance?

ANTICIPATED ANSWERS

A1. Cardiovascular activities will strengthen the heart, lungs and leg muscles.

A2. Improving strength means developing muscle tone.

A3. You can avoid injuries.

Teaching Point 4 **Discuss How to Physically Prepare for a Trek**

Time: 15 min Method: Interactive Lecture

EXERCISES TO BUILD BODY STRENGTH

Aerobic Exercises

It is recommended to improve cardiovascular endurance by practicing activities that one enjoys. Consistency is the key to success. Exercises should focus on increasing distance and duration as personal fitness improves. Exercises should be regular and well-balanced.

When increasing your cardiovascular and strength training activities, it is important to remember that pain is not an indicator of improvement.

To improve cardiovascular endurance, practice some of the following activities twice a week for at least 20 minutes:

- cycling (road or mountain biking);
- walking (on flat ground, briskly walk for a minimum of 40 minutes);
- going to the gym (stationary bike, cross trainer, rowing machine, etc.);
- running (progress from brisk walking to jog-walking to running);
- participating in classes (aerobics, step-aerobics, aqua-aerobics);
- swimming (lane swimming);
- playing any racquet sports;
- playing soccer; and
- any activities that use arms and legs causing the pulse to work at a minimum of 65% of one's maximum heart rate.

In order to keep interest, a person should vary their aerobic activities.

Remember, being active is easy to achieve without spending money or a great deal of time organizing an activity.

Strength Building Exercises

For this part, demonstrations may be performed by the instructor or an assistant instructor.

Distribute the handout, located at Annex D, to the cadets.

Explain to the cadets that if at any point these exercises hurt the body or become difficult, they should stop immediately.

For all weight exercises, weights should be conducive to fitness level. It should start with one pound and progress with the fitness level. Cadets do not have to buy a set of hand weights. They can use any objects with a handle (milk jug, soft drink or water bottle filled with sand or water).

Any “homemade” weights need to be weighed to ensure the pair are the same.

With any weight training, cadets should remember to:

- Control their movements in order to avoid swinging the weights.
- Avoid using the momentum to lift the weights.
- Stop any exercises that hurt or do not feel right.

LEGS

Abductor Raise. Lie on the floor on the left side with the left leg slightly bent. Use the left hand to support the head and place the right hand in front for support. Keeping the right leg straight and in line with the body, raise it with a slow, controlled movement. Hold for one second, lower and then repeat. This exercise should be repeated a minimum of 10 times on both sides.

Yahoo Health, 2007, Basic Muscle-conditioning Exercises, Copyright 2002 by Nucleus Communications Inc. Retrieved 29 March 2007, from http://health.yahoo.com/topic/weightloss/overview/article/healthwise/popup/zm2427

Figure 13-1-1 Abductor Raise

Lunge. Keep hands on sides with feet shoulder-width apart. Step forward with one leg, bending both knees until the thigh is parallel with the knee. Push back to the starting position. Alternate legs. Do not let the knee touch the ground. This exercise should be repeated a minimum of 10 times on both sides.

Department of Public Health County of Los Angeles California, 2006, LAPublicHealth.org/Strength Training, Copyright 2006 by LADPH. Retrieved 27 March 2007, from http://www.lapublichealth.org/physact/physactstrength.htm

Figure 13-1-2 Lunges With Weights

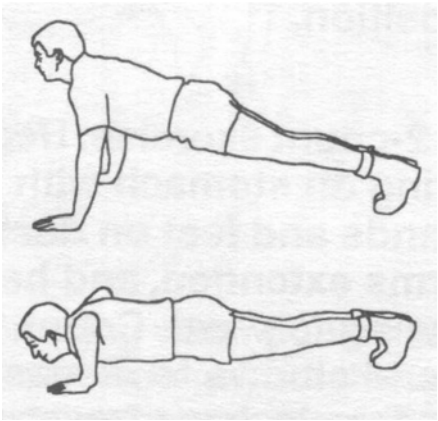
Glutes Raise. Support body weight on the elbows and knees with hands together in front. The back should stay straight. Keeping the right leg bent, raise it into the air. Press up into the heel. Count two seconds up and two seconds down. This exercise should be repeated a minimum of 10 times on both sides.

Bodybuilding.com, 2007, Exercise Guides-Glute Kickback, Copyright 2007 by Bodybuilding.com. Retrieved 29 March 2007, from http://bodybuilding.com/fun/exercises.php?mainmuscle=glute

Figure 13-1-3 Glutes Raise

ARMS

Pushups. Place hands directly under the shoulders, keeping fingers pointed forward and legs in line with the body. Lower the body toward the floor without touching it and then push off the floor to the start position. Do as many as you can.

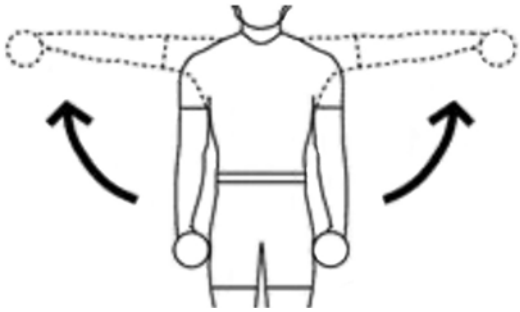


The Fitness Motivator.com, 2006, Add these Basic Exercises to your fitness plan. Retrieved on 29 March 2007, from http://www.the-fitness-motivator.com/basicexercises.html

Figure 13-1-4 Push Up

BACK AND SHOULDERS

Lateral Raise With Weights. Hold weights at the sides, palms facing in. Slowly raise arms to shoulder level and lower. Keep arms and wrists straight. This exercise should be repeated a minimum of 10 times on both sides.

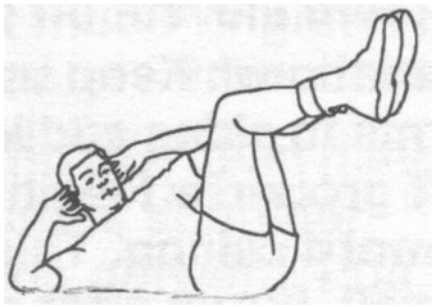


Weight Lifting Workout Routines, 2006, Shoulder Exercises, Copyright, 2006 by Weight Lifting Workout Routines. Retrieved 29 March 2007, from http://www.weight-lifting-workout-routines.com/shoulder-exercises.html

Figure 13-1-5 Lateral Raise With Weights

STOMACH

Crunches. Lie on the back bringing the legs up over the hips and cross the ankles. Place the arms either on the thighs, across the chest or beside the head (hardest). Pull stomach muscles in tight and then slowly curl up using abs to lift shoulders from the ground at the same time. Do not swing legs. This exercise should be repeated a minimum of 10 times for the left and right side. The number of repetitions can increase with comfort level.



The Fitness Motivator.com, 2006, Add these Basic Exercises to Your Fitness Plan. Retrieved on 3 April 2007, from http://www.the-fitness-motivator.com/basicexercises.html

Figure 13-1-6 Crunches Position

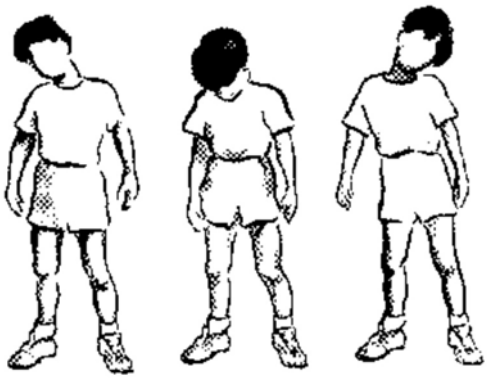
STRETCHING EXERCISES BEFORE AND DURING THE TREK

The following exercises should be conducted before and after a trek. They will reduce stiffness of muscles and prevent any stress or possible injuries.

It is a good idea, during the trek, to use a few minutes of your rest breaks to stretch.

Warming up before a trek allows the muscles to loosen. Stretches should be executed slowly and smoothly. Bouncing exercises or forced stretches are not recommended.

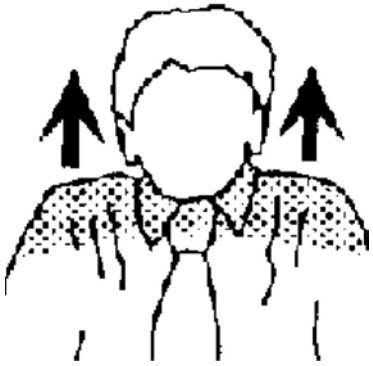
Neck. Slowly roll the head across the chest from shoulder to shoulder. Do not roll head backwards. This exercise should be repeated 10 times.



Moving on the Spot: A Collection of 5-Minute Stretch and Movement Sessions, by B. Hanson, 1999, Toronto, ON: Toronto Public Health. Retrieved 26 October 2006, from http://www.lin.ca/resource/html/dn3.htm#I1

Figure 13-1-7 Neck Stretch

Shoulders. Stand and raise the top of the shoulders toward the ears until a slight tension in the neck and shoulders is felt. Hold for five seconds. Then relax shoulders downward. This exercise should be repeated a minimum of 10 times.



University of Michigan Occupational Safety and Environmental Health, 2007, Basic Office Stretches, Copyright 2007 by The Regents of the University of Michigan. Retrieved 28 March 2007, from http://www.oseh.unmich.edu/ergonomics_intro.hmtl

Figure 13-1-8 Shoulders Stretch

Triceps and Top of Shoulders. Stand up and bring the right arm over the head, bent at the elbow. Use the left hand to gently pull the arm down. Hold this position for a minimum of 10 seconds. This exercise should be repeated a minimum of 10 times on both sides.

Smart Start: A Flexible Way to Get Fit. Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/

Figure 13-1-9 Triceps Stretch

Shoulders, Arms and Chest. Interlace fingers behind the back. If this feels fairly easy, then lift the arms up behind the back until a stretch is felt in the arms, shoulders, or chest. Hold for 10 to 15 seconds. Keep chest and chin out.

University of Michigan Occupational Safety and Environmental Health, 2007, Basic Office Stretches, Copyright 2007 by The Regents of the University of Michigan. Retrieved 28 March 2007, from http://www.oseh.unmich.edu/ergonomics_intro.hmtl

Figure 13-1-10 Shoulders, Arms and Chest Stretch

Hamstrings, Back Knees and Legs. Stand with the feet shoulder-width apart and pointed straight ahead. Slowly bend forward from the hips. Keep the knees slightly bent. Go to the point where a slight stretch is felt in the back of your legs. Hold for 10 to 15 seconds.

PC Coach, 2005, Stretching for Runners, Copyright 2005 by Biometrics Inc. Retrieved on 29 March 2007, from http://www.pccoach.com/newsletters/may05/stretching.htm

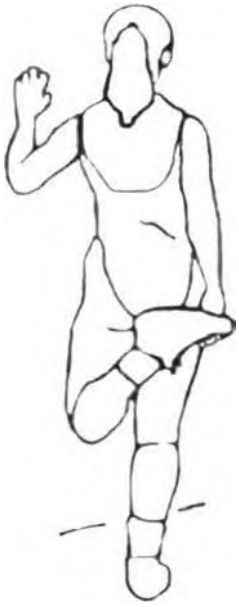
Figure 13-1-11 Hamstring, Back Knees and Leg Stretch

Front Hip and Lower Back Area. Start with one leg in front of the other, with the ankle of the front leg directly below the front knee. The other knee is resting on the ground. Place the hands on top of each other on the thigh, just above the knee. Hold for 10 to 15 seconds and repeat for the other side.

ARC Committed to Curing Arthritis, 2007, Back Pain, Copyright 2007 for Arthritis Research Campaign. Retrieved 27 March 2007, from http://www.arc.org.uk/about_arth/booklets/6002/6002

Figure 13-1-12 Stretch for Hip and Lower Back Area

Quads and Knees. Hold the top of the right foot with the left hand and gently pull the heel toward the buttocks. The knee bends at a natural angle when holding the foot with the opposite hand. Hold for 10 to 15 seconds and repeat for the other leg.



Women's Heart Foundation, 2005, Stretching Exercises for Women, Copyright 2005 for Women's Heart Foundation. Retrieved 28 March 2007, from http://www.womensheart.org/content/exercises/stretching_exercises.asp

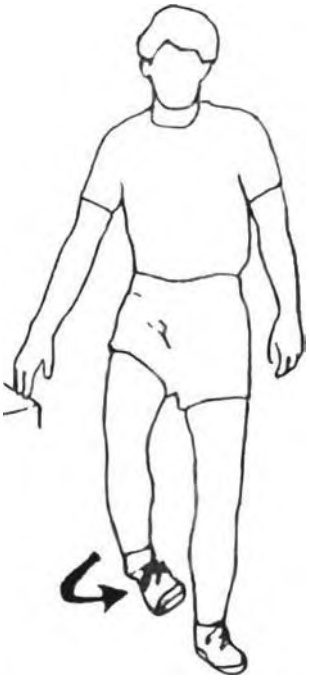
Figure 13-1-13 Quads and Knees Stretch

Squat. Squat down with feet flat and toes pointed out at 15 degrees. Heels should be apart depending on how flexible one is. Keep knees to the outside of the shoulders, directly above the big toes. Hold for 15 to 30 seconds. Using a fence or pole for balance is acceptable.

The Back Rack, 1999, Cycling Stretches After Riding, Copyright 1999 by Stretching Inc. Retrieved 29 March 2007, from http://thebikerack.com/page.cfm?pageId=247

Figure 13-1-14 Squat Position

Ankles. Lift the left foot off the ground and rotate the foot and ankle 10 to 15 times clockwise and then counterclockwise. Repeat for the right foot and ankle.



Women's Heart Foundation, 2005, Stretching Exercises for Women, Copyright 2005 by Women's Heart Foundation. Retrieved 28 March 2007, from http://www.womensheart.org/content/exercises/stretching_exercises.asp

Figure 13-1-15 Ankle Rotation

CONFIRMATION OF TEACHING POINT 4

QUESTIONS

Q1. Name two aerobic activities that improve strength.

Q2. Why is it important to stretch before, during and after a trek?

Q3. If experiencing pain during a stretch, what should you do?

ANTICIPATED ANSWERS

A1. Cycling, walking, running, aerobic classes, swimming, squash, soccer and any other activities that use arms and legs are all aerobics activities.

A2. Stretching allows the muscles to warm up and loosen and will reduce stiffness in the muscles for the trekker. It will prevent any stress or possible injuries.

A3. Stop the stretch and ask for help.

END OF LESSON CONFIRMATION

QUESTIONS

Q1. What can you do to improve your cardiovascular endurance?

Q2. Name the exercise that can improve your back/shoulders strength.

Q3. Why should you stretch before, during and after the trek?

ANTICIPATED ANSWERS

A1. Practice favourite activities such as cycling, walking, gym, running, classes, swimming, squash, soccer or any other activities that use arms and legs.

A2. It is the lateral raise with weights.

A3. Stretching allows the muscles to warm up and loosen while reducing stiffness in the muscles for the trekker and preventing any stress or possible injuries.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Knowing how to prepare for a trek may save time and prevent difficult experiences. It is imperative for cadets to be prepared before leaving for a trek as it may make the trip easier and more enjoyable for everyone.

INSTRUCTOR NOTES/REMARKS

For the activity in TP1, trekking equipment may be borrowed. Some sponsors may be able to provide a deposit so that some outdoor stores will loan outdoor equipment. This activity may also be conducted in an outdoor store.

A hand out on the exercises and stretches is located at Annex D.

REFERENCES

C0-089 (ISBN 0-936070-22-6) Anderson, B. (2000). *Stretching 20th Anniversary* (Rev. ed.). Bolinas, CA: Shelter Publications Inc.

C2-016 (ISBN 0-517-88783-5) Curtis, R. (1998). *The Backpacker's Field Manual: A Comprehensive Guide to Mastering Backcountry Skills*. New York, NY: Three Rivers Press.

C2-017 (ISBN 0-7627-0476-4) Roberts, H. (1999). *Basic Essentials, Backpacking*. Guilford, CT: The Globe Pequot Press.

C2-042 (ISBN 0-7566-0946-1) Berger, K. (2005). *Backpacking & Hiking*. New York, NY: DK Publishing, Inc.

C2-051 (ISBN 978-0-7153-2254-3) Bagshaw, C. (Ed.). (2006). *The Ultimate Hiking Skills Manual*. Cincinnati, OH: David & Charles.

ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 2

EO M223.02 – IDENTIFY HIKING/TREKKING ASSOCIATIONS

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

To facilitate the delivery of TP1, seek out hiking/trekking associations in your community and use them in the provincial associations portion of the TP.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for this lesson to give an overview of civilian hiking/trekking organizations, their mandate and the government resources available.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall have participated in a discussion on hiking/trekking associations.

IMPORTANCE

It is important for cadets to know the civilian resources available in the world of hiking and trekking, as it may help them develop an interest in those activities.

Teaching Point 1 **Identify Civilian Hiking/Trekking Organizations and Their Mandate**

Time: 20 min Method: Interactive Lecture

NATIONAL ASSOCIATIONS

The Alpine Club of Canada

The Alpine Club of Canada is a national mountaineering organization. It was created in 1906 with the support of Pacific Railway. It is now based in Canmore, Alberta. The Alpine Club of Canada has 19 regional clubs: Vancouver Island, Vancouver, Whistler, Okanagan, Prince George, Rocky Mountain, Jasper, Calgary, Central Alberta, Edmonton, Saskatchewan, Manitoba, St. Boniface, Thunder Bay, Toronto, Outaouais, Ottawa, Montreal, and Montréal (français).

The Alpine Club of Canada offers the following to its members:

- mountain adventures opportunities (rock climbing, mountaineering courses, trips or activities);
- rental opportunities for huts and cabins;
- climbing competitions;
- social events; and
- publications related to the mountain culture.

The Alpine Club of Canada is also involved in the community. It offers grants to mountaineering projects and has a protection and environmental conservation program.

To contact the Alpine Club of Canada: http://www.alpineclubofcanada.ca/.

Trails Canada

Launched in June 2000, Go Green was created to support and promote Canadian trails and the Canadian trails system. It also provided Internet resources on the trail system. Go Green was a partnership between Trails Canada, COMPAQ Canada and Government of Canada Millennium Partnership Grant. Four years later, the name of the Website was changed to Trails Canada. Trails Canada's mission is to create a trail network dedicated to helping people find trails in any province or territory.

Trails Canada provides the following:

- on-line tools and support services for trail users and community trail groups;
- inventories of Canadian trails by region;
- descriptive information on trail terrain, scenery, nature notes, accessibility, etc.;
- trail construction and advocacy tools for communities;
- on-line trail registry allowing community trail groups to promote their trails worldwide;
- news and information through an on-line newsletter (The Pathfinder); and

- a calendar of events allowing community groups to promote trail activities to a worldwide audience.

The trail inventory now contains more than 3900 trails, with entries in every province and territory in Canada.

To contact Trails Canada: http://www.trailscanada.com/index.htm.

The Trans Canada Trail

The Trans Canada Trail is a community-based project. It is owned, operated and maintained by local organizations, municipalities, provincial authorities and national agencies across Canada. The Trans Canada Trail is a recreational trail that crosses the country.

This 18 000 km recreational corridor winds its way through every province and territory, linking over 800 communities along its route. When completed, this will be the longest trail of its kind in the world, connecting regions and the three oceans.

The Trans Canada Trail provides the following:

- maps of the majority of the trail's section;
- guidebooks; and
- a Website trail locator.

To contact the Trans Canada Trail: http://www.tctrail.ca/home.php.

PROVINCIAL ASSOCIATIONS

Focus on the associations from your province only. If time allows, associations from neighbouring provinces may be presented.

Kootenay Mountaineering Club (BC)

The Kootenay Mountaineering Club (KMC) started in April 1964 as a section of the Alpine Club of Canada. In 1968, the section was dissolved and in 1969, the same group was resurrected as the Kootenay Mountaineering Club. The KMC is a non-profit society based in the Kootenay region of southeastern British Columbia. The KMC promotes an interest in, and the development of, mountaineering skills, fellowship, and conservation of the natural values in the mountains.

The KMC organizes outdoor activities year round including: hiking, climbing, skiing, and mountain biking trips; hiking and climbing camps; and training classes to teach basic mountaineering skills. KMC also organizes a number of social gatherings during the year. It is involved in building and maintaining huts and trails throughout the Kootenay region.

The KMC publishes a monthly newsletter, which includes a list of upcoming activities, descriptions of recent trips, comments on issues in which the Club is involved, and other articles of general interest. The KMC also publishes an annual journal and maintains a library of mountaineering books and magazines.

The KMC also takes an active role in conserving and defending the natural values of the mountains.

To contact the Kootenay Mountaineering Club: http://www.kootenaymountaineering.bc.ca/.

West Coast Trail (BC)

The West Coast Trail is located on the southern west coast of Vancouver Island and stretches 75 km from Port Renfrew on the south end to Bamfield on the north end.

The West Coast Trail is one of three components of the Pacific Rim National Park Reserve of Canada.

The trail started with a shipwreck back on January 22, 1906. The 77 m vessel SS Valencia ran aground just north of Klanawa River on Vancouver Island's west coast. The wild and rugged shoreline, bordering a temperate rain forest, offered no relief whatsoever and the lives of all 126 passengers were lost. This tragic event spurred the government at that time to construct a trail between Port Renfrew and Bamfield in case of future shipwrecks (as this section of the Pacific had been the site of more than 60 shipwrecks since 1854). The present West Coast trail generally follows the route of the historic life- saving trail.

Through the Pacific Rim National Park Reserve of Canada, Parks Canada manages the reservations for any activities on the trail.

Edmonton Outdoor Club (AB)

Founded March 1, 2006, the Edmonton Outdoor Club (EOC) is a volunteer-run organization for adults, featuring adventure sports (mostly non-competitive), social events and travel excursions in and around the Edmonton area. The EOC's mission is to provide its members with fun experiences, the opportunity to network, and the ability to learn about and participate in local adventure sports.

The EOC hosts a wide variety of events every year, including:

- adventure sports – hiking, camping, backpacking, mountain biking, paddling, skiing, skating, snow shoeing, etc.;
- social events – socials, spectator sporting events, etc.; and
- travel – adventure trips and expeditions to various parts of Canada and the U.S., and possibly beyond.

Membership is open to any interested adult, regardless of their experience level. Members pay only for those events they attend and membership is free, although member support, in the form of both time and monetary donations, is solicited to keep the club running. There is no paid staff.

To contact the Edmonton Outdoor Club: http://www.edmontonoutdoorclub.com/.

Manitoba Recreational Trails Association Inc. (MB)

The Manitoba Recreational Trails Association (MRTA) is the official body overseeing the coordination of the building of the Trans Canada Trail in Manitoba. It is composed of volunteers and is located in Winnipeg. The MRTA helps with:

- providing funding to recognized trail associations for trail development;
- providing trail-building resources to trail associations;
- promoting the Trans Canada Trail in Manitoba; and
- promoting other trails and trail use in Manitoba.

To contact the Manitoba Recreational Trails Association Inc: http://www.mrta.mb.ca/.

Hike Ontario (ON)

Hike Ontario was founded in 1974 and is a non-profit organization dedicated to serving the needs of all hikers and walkers in the province of Ontario. Hike Ontario does not make or maintain trails, nor does it offer organized hiking/walking events, except through its member associations.

Hike Ontario's mission is to encourage walking, hiking and trail development in Ontario. It also provides a list of clubs one can join and a list of various hiking, trekking and mountaineering courses one can take.

To contact Hike Ontario: http://www.hikeontario.com/.

Ontario Trails Council (ON)

The Ontario Trails Council (OTC) was established in 1988. It started as a coalition of trail user groups, such as hikers, cyclists, snowmobilers, equestrians, etc. with a shared interest in trails and the conservation of abandoned rail lines for use as trails. It is a volunteer led, charitable organization, promoting the creation, preservation, management and use of recreational trails in Ontario.

Memberships have broadened to include other similar trail organizations and others with similar interests and values.

The following are the OTC's goals:

- Encourage the establishment of the Trillium Trail Network.
- Increase the number, length, variety and accessibility of trails throughout the province.
- Provide government and other public bodies with an informed, credible voice in support of trail interest groups.
- Promote the safe and responsible use of trails.
- Act as a provincial resource centre for trail information.

To contact The Ontario Trails Council: http://www.ontariotrails.on.ca/.

Toronto Outdoor Club (ON)

Founded May 1, 2005, the Toronto Outdoor Club (TOC) is a volunteer-run organization for adults, featuring adventure sports (mostly non-competitive), social events and travel excursions in and around the Toronto area. The TOC's mission is to provide its members with fun experiences, the opportunity to network, and the ability to learn about and participate in local adventure sports.

The TOC hosts a wide variety of events every year, including:

- adventure sports – hiking, camping, backpacking, mountain biking, paddling, skiing, skating, snow shoeing, etc.;
- social events – socials, spectator sporting events etc.; and
- travel – adventure trips and expeditions to various parts of Canada and the U.S., and possibly beyond.

Membership is open to any interested adult, regardless of their experience level. Members pay only for those events they attend and membership is free, although member support, in the form of both time and monetary donations, is solicited to keep the club running. There is no paid staff.

To contact the Toronto Outdoor Club: http://www.torontooutdoorclub.com/.

The Bruce Trail Association

The Bruce Trail is the oldest and longest continuous footpath in Canada. It runs along the Niagara Escarpment from Niagara to Tobermory, spanning more than 850 km of main trail and 250 km of side trails. It started in 1960 with the idea of a public footpath spanning the entire Niagara Escarpment. Regional clubs were established in 1963 and they were responsible for organization, landowner approvals, construction and maintenance.

The Bruce Trail Association is a charitable organization committed to establishing a conservation corridor containing a public footpath along the Niagara Escarpment, in order to protect its natural ecosystems and to promote environmentally responsible public access to this UNESCO World Biosphere Reserve.

To contact the Bruce Trail Association: http://www.brucetrail.org/.

Fédération québécoise de la marche (QC)

The Fédération québécoise de la marche was created to promote any type of walk. Four times a year, the Federation publishes a magazine called "Marche Randonnée". It contains calendars, information on upcoming activities, suggestions on hiking and trails to use, information on health, lifestyle, environmental issues and information and advice on new equipment, etc. Everything is related to hiking and trekking.

The federation is involved in the Trans Canada Trail project and promotes good trail etiquette.

The federation also publishes a book on trails and locations one can use in the province of Quebec.

To contact the Fédération québécoise de la marche: http://www.fqmarche.qc.ca/.

Le club de montagne Le Canadien (QC)

Le club de montagne Le Canadien was created in 1949 and is one of the oldest francophone clubs in North America. It is a volunteer-based organization that focuses on outdoor activities. The club organizes yearly activities like:

- hiking and trekking;
- camping; and
- cross-country skiing and snowshoeing.

For all of its activities, the club offers carpooling opportunities to reduce the impact on the environment. It also organizes volunteer groups to maintain and clean trails in regions of Quebec.

The club publishes a monthly bulletin on its activities.

To contact Le club de montagne Le Canadien: http://www.clubmontagnecanadien.qc.ca/.

The International Appalachian Trail (QC)

The International Appalachian Trail started in 1996. The layout was coordinated by the corporation International Appalachian Trail-Quebec (IAT-QC). Many volunteers and organizations in each region crossed by the trail were involved in the project.

The trail is 644 km long and extends from Cap-Gaspé, located in Forillon National Park (QC), to Matapédia (QC).

The International Appalachian Trail symbolizes the will of the people of Quebec, New Brunswick and Maine to collaborate in the protection and promotion of the environment that joins them. The association was given the objective to arrange a path approximately 1034 km in length, including approximately 600 km in Quebec, 274 km in New Brunswick and 160 km in Maine. The Appalachian Trail, which was built over 60 years ago and which attracts approximately 37 million hikers annually to its 3455 km trail, connects the Quebec path to Mount Katahdin, in Maine.

Consequently, the International Appalachian Trail is 4489 km in length, which makes it the longest path in North America. For comparison, the Great Wall of China is only 3000 km.

The association can provide:

- a trip planner;
- maps;
- information on campgrounds and shelters; and
- information on flora and fauna.

To contact The International Appalachian Trail (QC): http://www.sia-iat.com.

To use the International Appalachian Trail, a permit is needed.

The International Appalachian Trail has a chapter in Newfoundland and Labrador. To contact the Newfoundland and Labrador chapter: www.internationalat.org/pages/index.

New Brunswick Trail Council Inc. (NB)

The New Brunswick Trails Council Inc. (NBTCI) is a non-profit, membership/volunteer organization dedicated to the advancement of the trails movement in New Brunswick. Its mandate is to work for the improvement of trails throughout New Brunswick and to help local trail sponsors build, maintain, and promote their local trails.

The NBCTI provides a safe trail network with rules for use of trails and enforcement. It also offers the following:

- trail related expertise, consulting, and information;
- trail guides;
- newsletters;
- updated Website;
- Adopt a Trail program; and
- trail patrol service.

To contact the New Brunswick Trail Council Inc: http://www.sentiernbtrail.com/.

The Nova Scotia Trails Federation (NS)

The Nova Scotia Trails Federation (NSTF) was created in 1988 and is a non-profit organization. The primary goal of the NSTF is to promote the development and responsible use of recreational trails for the benefit and enjoyment of all visitors. It also represents the interest of trail users and community-based recreational trail groups across Nova Scotia. NSTF supports local groups in their efforts to plan, build, maintain and manage their segments of trail.

The NSTF has adopted the motto “Take Trails to H.E.A.R.T”. The letters in H.E.A.R.T stand for health, environment, arts (culture and heritage), recreation and transportation.

On the NSTF web site, one can find the following:

- a trail finder;
- trail etiquette and safety; and
- a newsletter “Trail Talk”.

The NSTF also provides a trail patrol service.

To contact the Nova Scotia Trails Federation: http://novascotiatrails.com/.

Island Trails (PE)

Island Trails is a non-profit organization dedicated to the development, maintenance, and promotion of Prince Edward Island's network of trails.

The organization provides help in planning expeditions and a virtual trail finder. Trails are accessible for the following activities:

- hiking;
- trekking;
- cycling; and
- snowmobiling.

To contact Island Trails: http://www.islandtrails.ca/.

East Coast Trail (NL)

The East Coast Trail association is a member driven, volunteer based, non-registered charity formed in 1994 in Newfoundland and Labrador. Its mission is to develop, maintain and operate the East Coast Trail and deliver a high quality wilderness hiking experience, while respecting the integrity of the environment and the needs of communities.

There is no fee to use the trail and no fees to participate in the public hiking program.

The association provides access to abandoned settlements, lighthouses, ecological reserves, seabird colonies, whales, icebergs, the world's southern-most caribou herd, historic sites, a 50-metre suspension bridge and two active archaeological dig sites.

To contact East Coast Trail: http://www.eastcoasttrail.com/.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. Name three national hiking/trekking associations.

Q2. What is the mission of Trails Canada?

Q3. Name any three provincial associations.

ANTICIPATED ANSWERS

A1. The Alpine Club of Canada, Trails Canada and the Trans Canada Trail are three national hiking/trekking associations.

A2. Trails Canada's mission is to create a trail network dedicated to helping people find trails in any province or territory.

A3. Kootenay Mountaineering Club (BC), West Coast Trail (BC), Edmonton Outdoor Club (AB), Manitoba Recreational Trails Association Inc. (MB), Hike Ontario (ON), Ontario Trails Council (ON), Toronto Outdoor Club (ON), The Bruce Trail Association (ON), Fédération québécoise de la marche (QC), Le club de montagne Le Canadien (QC), The International Appalachian Trail (QC), New Brunswick Trail Council (NB), The Nova Scotia Trails Federation (NS), Island Trails (PE) and East Coast Trail (NL) are all the provincial associations.

Teaching Point 2 **Identify Government Hiking/Trekking Resources**

Time: 5 min Method: Interactive Lecture

Park wardens patrol all national and provincial parks. Parks have offices with which users may have to register or get a permit before entering. It is always a good idea to check in with park offices before starting an expedition. Parks wardens should be aware of travel intentions and the return date. Users should also check out with park offices on leaving the park after their expedition.

PARKS CANADA

Parks Canada is a federal government department that has been working to protect and present Canada's natural and cultural heritage for over a century. Park Canada's mandate is also to foster public understanding, appreciation and enjoyment in ways that ensure ecological integrity of their parks.

Parks Canada works with other government departments and non-governmental agencies to provide trip planning and safety information for visitors. It is also responsible for search and rescue within any national parks.

Parks Canada oversees four main departments:

- National Parks;
- National Marine Conservation areas of Canada;
- Cultural Heritage; and
- Natural Heritage.

Parks Canada has established policies for park users. Since national parks are protected areas, the policies concern the respect of other users, the environment and wildlife.

Parks Canada also provides the following services:

- a list of all National parks and their location;
- a list of campgrounds available, their cost and a reservation service;
- a list and maps of their trails;
- youth and group programs; and

- a help desk service to help users plan their trips.

Any national park will have a visitor information service.

To contact Parks Canada: http://www.pc.gc.ca/.

PROVINCIAL PARKS

Provincial Parks are overseen by their provincial government. The majority of provincial parks work in collaboration with Parks Canada to keep a similar code of ethics, policies for park users and activities.

Provincial parks usually offer the following:

- accommodations, campgrounds and reservation service; and
- guides and maps of trails and activities offered.

Activities within provincial parks may change from province to province. Here is a brief list of typical activities one may find in a provincial park:

- cross country skiing;
- cultural/natural exhibits;
- cycling;
- fishing (locations);
- guided hikes;
- hiking and trekking;
- kayaking and canoeing;
- rock climbing areas;
- snowshoeing; and
- swimming.

- British Columbia: http://www.env.gov.bc.ca/bcparks/.
- Alberta: http://www.cd.gov.ab.ca/enjoying_alberta/parks/planning/gateway/index.aspx.
- Saskatchewan: http://www.se.gov.sk.ca/saskparks/.
- Manitoba: http://www.gov.mb.ca/conservation/parks/.
- Ontario: http://www.ontarioparks.com/english/index.html.
- Quebec: http://www.sepaq.com/index-en.html.
- New Brunswick: http://www.tourismnewbrunswick.ca/enCA/HNNationalAndProvincialParks/.
- Nova Scotia: http://parks.gov.ns.ca/.
- Newfoundland and Labrador: http://www.env.gov.nl.ca/parks/.
- Yukon, North West Territories and Nunavut only have national parks. The information is available on Parks Canada Website.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. Name the four departments that Parks Canada oversees.

Q2. Name two services that can be provided by Parks Canada.

Q3. Name four typical activities one may find in a provincial park.

ANTICIPATED ANSWERS

A1. Parks Canada oversees national parks, the national marine conservation areas of Canada, cultural heritage and natural heritage.

A2. Parks Canada can provide a list of all national parks and their location, a list of campgrounds available, their cost and a reservation service, a list and maps of their trails, youth or group programs and a help desk service to help users plan their trips.

A3. Cross country skiing, cultural/natural exhibits, cycling, fishing (locations), guided hikes, hiking and trekking, kayaking and canoeing, rock climbing areas, snowshoeing, and swimming are the typical activities one can find in a provincial park.

END OF LESSON CONFIRMATION

QUESTIONS

Q1. Name three national hiking/trekking associations.

Q2. What is the mandate of Parks Canada?

Q3. What are the two things a provincial park usually provides?

ANTICIPATED ANSWERS

A1. The Alpine Club of Canada, Trails Canada and the Trans Canada Trail are three national hiking/trekking associations.

A2. Parks Canada's mandate is to work to protect and present Canada's natural and cultural heritage and to foster public understanding, appreciation and enjoyment in ways that ensure ecological integrity of their parks.

A3. Provincial parks provide accommodations and campgrounds to rent, a reservation service and guides, maps of trails and activities.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Knowing about the civilian hiking/trekking associations in your province may be very practical when planning an expedition. Government departments and civilian associations can provide useful information and educate novice trekkers.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

C0-078 Mountain Equipment Co-op. (2007). *Connect*. Retrieved 28 February 2007, from http://www.mec.ca.

C2-052 Parks Canada. (2007). *National Parks of Canada*. Retrieved 28 February 2007, from http://www.pc.gc.ca.

C2-055 The Alpine Club of Canada. (2007). *The Alpine Club of Canada: Canada's National Mountaineering Organization*. Retrieved 28 February 2007, from http://www.alpineclubofcanada.ca/index.html.

C2-056 Trails Canada. (2007). *Trails Canada*. Retrieved 28 February 2007, from http://www.trailscanada.com.

C2-057 The Trans Canada Trail. (2007). *Welcome to Trans Canada Trail*. Retrieved 28 February 2007, from http://www.tctrail.ca.

C2-058 Hike Ontario. (2007). *Hike Ontario*. Retrieved 28 February 2007, from http://www.hikeontario.

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ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 3

EO M223.03 – PARTICIPATE IN A DISCUSSION ON CROSSING OBSTACLES WHILE TREKKING

Total Time: 60 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in Chapter 4 of the QSP. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for this lesson to introduce safe techniques to cross natural obstacles, to give direction on procedures and to illustrate the application of the concepts.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to know how to cross obstacles while trekking.

IMPORTANCE

It is important for cadets to know how to cross obstacles while trekking as Red Star training introduces Class 2 hiking terrain and longer treks. It will help the cadets be prepared and meet the physical challenges of an expedition.

Teaching Point 1 **Discuss Trekking Poles and Walking Sticks**

Time: 15 min Method: Interactive Lecture

TYPES OF POLES AND STICKS

There are three types of trekking poles – ski poles, wooden walking sticks and telescoping trekking poles. Depending on the activity, the choice of pole will be different.

Trekking poles provide better balance and reduce the amount of stress on the knees, shoulders and back. They absorb some of the impact the body would otherwise absorb. The poles, rather than the body, absorb shock, reduce arm and leg fatigue and improve endurance.

Ski poles and walking sticks may be used for long walks and easy treks on fairly level surfaces. The walking stick may be an acceptable choice for moderate treks. Telescoping trekking poles are the most versatile choice. They work well for hiking and trekking on rough terrain.

Black Diamond, 2005, Gear, Copyright 2006 by Black Diamond Equipment Ltd. Retrieved 12 April 2007, from http://www.bdel.com/gear/fixed_length_ski.php

Figure 13-3-1 Ski Pole

Wintergoodies.com, 2007, Hiking, Trekking & Walking Pole Adjustable, Copyright 2007 by Wintergoodies.com. Retrieved 12 April 2007, from http://www.winterbrookgoodies.com/pd_swissgear_hiking_trekking_walking_pole.cfm

Figure 13-3-2 Telescoping Trekking Pole

The Walking Stick, 2005, Hiking Poles & Walking Sticks & Staffs, Copyright 2005 by The Walking Stick. Retrieved 12 April 2007, from http://www.backpacking.net/walkstik.html

Figure 13-3-3 Wooden Walking Stick

Some people like to have one hand free and only use one pole. For a greater level of support, two is better.

A solid wooden walking stick can be picked up in nature at any time during an expedition.

CRITERIA FOR CHOOSING POLES

To find the right trekking poles or walking stick, one should think about the type of activities for which they will be used, the type of terrain and the weight one will carry.

Aluminum telescoping poles are the best option. They are affordable and will last longer.

Telescopic Adjustment. Poles with telescopic adjustment may be adjusted to be longer or shorter depending on the type of terrain. Multiple people can use the same set of poles by adjusting the length. The poles are easy to store when not in use.

Alibaba.com, 2007, Trekking Poles, Copyright 2007 by Alibaba.com Corporation and Licensors. Retrieved 17 April 2007, from http://aoqida.en.alibaba.com/product/50252655/51316862/Trekking_Poles/Trekking_Pole.html

Figure 13-3-4 Telescoping Pole

Grips. Grips that have been shaped to fit the hand are more comfortable to grasp and easier to use over a long period of time. Grips that are hard can get wet with sweat and be uncomfortable to hold. One should try multiple models to find the one that fits the hand the best. An adjustable strap should be attached to the grip to prevent dropping the pole.

Moontrail, Backcountry Equipment Ltd, 2006, MSR Denali II, Telescoping Trekking poles, Copyright 2006 by Backcountry Equipment, Ltd. Retrieved 17 April 2007, from http://moontrail.com/msr-denali2.php

Figure 13-3-5 Grip With Strap

Anti-shock System (shock absorption). The anti-shock system is built into the pole. Some systems are very complex and offer a range of settings depending on the user's preferences and the conditions of the trek. The anti-shock system helps absorb the impact of the pole striking the ground as one walks, easing the strain on the shoulders and arms. A lock system is a must as it allows the user to ensure the settings are locked and will not change during the hike.

Baskets. Baskets are the round rings at the bottom of trekking poles. The basket stops the poles from sinking into the surface (snow, mud or waterlogged ground). There are a variety of baskets. Baskets that are cut out like snowflakes are best used in the snow. Large, solid baskets are best used on soft muddy ground as they prevent sinking. If one is planning to buy trekking poles with baskets, ensure the baskets can easily be changed.

Backcountry Edge, 2004, LEKI Snowflake Baskets, Copyright 2004 by Backcountry Edge, Inc. Retrieved 17 April 2007, from http://www.backcountryedge.com/products/leki/snowflake_baskets.aspx

Figure 13-3-6 Snowflake Baskets

Backcountrygear.com, 2007, Black Diamond Trekking Pole Spare Baskets. Retrieved 17 April 2007, from http://www.backcountrygear.com/catalog/accessdetail.cfm/BD320

Figure 13-3-7 Solid Baskets

Tips. There are three types of tips – single point, chiselled and rubber tipped. Each of these tips will work well in a certain environment. The best overall tip is the chiselled. It looks like notches have been cut out of the very tip of the pole, leaving several points sticking out. This type of tip offers traction in almost any condition and is durable.

GoSki-Real Resort Info, 2005, Poles and Trekking Poles, Copyright 2005 by RSN. Retrieved 17 April 2007, from http://www.goski.com/gear/product/LifeLink_Replaceable_Flex_Tip_Pair.html

Figure 13-3-8 Replaceable Tips

USING TREKKING POLES

Using trekking poles may help prevent aches and pains. Poles are useful to help stabilize heavy loads and to negotiate trails. Besides providing better balance, trekking poles reduce the amount of stress on the back, legs and especially the knees. The poles absorb some of the impact the body would have to endure.

As an explanation is given, demonstrate the different techniques for holding trekking poles.

Trekking Uphill. For walking on even terrain, arms should be parallel to the ground when holding the grip. When trekking uphill, shorten the trekking poles for comfort and stability. It allows one to gain more power.

TrekkingPoles.com, 2006, How to Use Trekking Poles, Copyright 2006 by NicheRetail, LLC Company. Retrieved 26 April 2007, from http://www.trekkingpoles.com/custserv/custserv.jsp?pageName=How_To_Use

Figure 13-3-9 Trekking Uphill

Trekking Downhill. Trekking poles will help reduce the shock of each footfall on the joints when going downhill.

TrekkingPoles.com, 2006, How to Use Trekking Poles, Copyright 2006 by NicheRetail, LLC Company. Retrieved 26 April 2007, from http://www.trekkingpoles.com/custserv/custserv.jsp?pageName=How_To_Use

Figure 13-3-10 Trekking Downhill

The following may help while descending on rocky terrain:

- Walk slowly and test each rock before placing body weight on it.
- On even ground, lean forward to place bodyweight on the trekking poles.
- Grip the trekking pole securely.
- Keep the arms bent at 90 degrees.
- When possible, move one pole forward and step through with the opposite leg.

When trekking downhill, lengthen the trekking poles for comfort and stability.

Trekking poles can also be used to:

- probe the depth of puddles or the strength of snow bridges;
- ward off aggressive animals; and
- provide support for a camera.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. Name three types of trekking poles.

Q2. Name three criteria to consider when selecting trekking poles.

Q3. What are the advantages of using trekking poles?

ANTICIPATED ANSWERS

A1. Three types of trekking poles are ski poles, wooden walking sticks and telescoping trekking poles.

A2. The criteria to consider when selecting trekking poles are telescopic adjustment, grips, anti-shock system, baskets and tips.

A3. Trekking poles may help prevent aches and pains. Poles are useful to help stabilize heavy loads and to negotiate trails. Besides providing better balance, poles reduce the amount of stress on the back, legs and especially the knees. The poles absorb some of the impact the body would have to endure.

Teaching Point 2 **Explain Scrambling**

Time: 5 min Method: Interactive Lecture

Scrambling is a term used to describe making one's way over rough, uneven terrain and rocks by climbing or crawling. Scrambling usually requires the use of both hands and feet.

The following should be considered when using the scrambling technique:

- Test handholds and footholds before committing bodyweight.
- Keep the lower body close to the rocks.
- Use the hands to help maintain balance.
- Use large muscles in the legs to support body weight.
- Always maintain three points of contact with the rocks.

Talisman Newsletter, 2006, Merry Christmas, Copyright 2007 by Talisman Mountaineering Activities Scotland. Retrieved 17 April 2007, from http://www.talisman-activities.co.uk/downloads/newsletters/newsletter4/newsletter4.htm

Figure 13-3-11 Scrambling Technique

When scrambling and facing difficulty, take a moment to catch your breath. Study your route options and always identify a way to turn back.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. What is scrambling?

Q2. Which muscles should be used to support body weight?

Q3. How many points of contact should be kept with the rocks when scrambling?

ANTICIPATED ANSWERS

A1. Scrambling is a term use to describe making one's way over rough, uneven terrain and rocks by climbing or crawling. Scrambling usually requires the use of both hands and feet.

A2. The leg muscles should support body weight.

A3. Three points of contact should be kept with the rocks when scrabling.

Teaching Point 3 **Explain Boulder Hopping**

Time: 5 min Method: Interactive Lecture

Boulder hopping is when one uses speed and momentum to lightly hop from boulder to boulder using arms or trekking poles to stay balanced.

The following should be considered when boulder hopping:

- Plan your route. Larger boulders are more stable.
- Use your hands for stability.
- Keep your knees bent and relaxed.
- Control speed. Lightly hop.
- If one begins to lose balance, move forward, stepping lightly from foot to foot until balance is regained.

Great Outdoor, 2006, Hiking the Forgotten End of the AT, Copyright 2006 by Greatoutdoor.com. Retrieved 12 April 2007, from http://www.greatoutdoors.com/go/photos.jsp?title=hikingtheforgottenendoftheat&imag=1

Figure 13-3-12 Boulder Hopping With Trekking Poles

If one wants to practice the boulder hopping technique, medium sized rocks are the best. Practice without a backpack. If one needs to carry a backpack, it should be as small as possible.

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

Q1. What are the two elements used when boulder hopping?

Q2. Describe boulder hopping.

Q3. What should you do when you lose your balance?

ANTICIPATED ANSWERS

A1. When boulder hopping one uses speed and momentum.

A2. Boulder hopping is when one lightly hops from boulder to boulder using arms or trekking poles to stay balanced.

A3. If one begins to lose balance, move forward, stepping lightly from foot to foot until one regains balance.

Teaching Point 4 **Explain Methods for Crossing a Scree**

Time: 15 min Method: Interactive Lecture

A scree is a mass of fine, small rocks that are often found above the tree line on mountain slopes. When dealing with a scree, caution is the first rule.

East Riding of Yorkshire Council, E Riding media library-England North, Copyright 2007 by School Improvement Service, East Riding of Yorkshire Council. Retrieved 17 April 2007,from http://www.eriding.net/media/england_north.shtml

Figure 13-3-13 Scree

Moving on a scree should be avoided, if possible.

TRAVERSING A SCREE

Traversing means walking obliquely or crossing in a sideways movement.

Walking on a scree may be very slippery. When traversing a scree, a planned zig-zag path is the best option. The planned route should be broken down in small sections. One should keep the pace controlled and remember that speed can only mean greater risk.

Walking Sideways. Walking sideways will provide more contact between the long side of the foot and the slope to give better stability.

CLIMBING ON A SCREE

One should avoid climbing up a scree, if possible as it can be very exhausting. If there is no other option, the following tips should be considered:

- Keep to the sides of the scree. The movement of the scree is slower and larger boulders can be found there.
- Aim to keep your feet horizontal. If the scree is small enough, kick the toes into the slope (like in snow).
- Climbing with the feet spread-eagled will help put weight on the instep of each boot.
- Take small steps to reduce the strain on the legs. This also reduces the chances of slipping.
- Legs should be bent at the knee to support the body.

DESCENDING ON A SCREE

When descending a scree, one should keep the weight on the heels and take short steps. One's back should be straight and the knees should be slightly bent to absorb stress and improve balance.

The following should be considered when descending a scree:

- Dig the heels into the slope.
- Use the hands to stay steady.
- Relax the knees and keep moving.

CONFIRMATION OF TEACHING POINT 4

QUESTIONS

Q1. What is a scree?

Q2. What does climbing with the feet spread-eagled help with?

Q3. What actions can help make a scree descent safer?

ANTICIPATED ANSWERS

A1. A scree is a mass of fine, small rocks that are often found above the tree line on mountain slopes.

A2. Climbing with the feet spread-eagled will help put weight on the instep of each boot.

A3. The following actions can make the descent safer: dig the heels into the slope, use the hands to stay steady and relax the knees and keep moving.

Teaching Point 5 **Explain Crossing Water Obstacles**

Time: 10 min Method: Interactive Lecture

CROSSING RIVERS

Crossing rivers can be very challenging depending on the time of the year (e.g. spring when snow melts into streams and rivers). A plan should be established before crossing a river.

Choose a Place to Cross. The safest place to cross is where the water is calm and no deeper than the height of one's hips. Such conditions can be found around rivers bends, where the stream widens and slows to make the turn. The darker (and greener) the water, the deeper it is.

The following should be avoided:

- turbulence that causes white water;
- dark water; and
- a powerful current.

Best Time to Cross. Early in the morning is the best time to cross. Rivers run slower in the morning because the water is colder at night. If conditions appear dangerous, walk upstream in search of a safer option. Always cross with caution.

Wading Across a River. Wading across a river is the safest option. When crossing, always face upstream, diagonal to the current.

If crossing in a group, the strongest people should be at the end and link arms. The group should move slowly in a line, diagonal to the current.

Trekking poles can be used to wade across a river. They will help with maintaining balance.

When crossing a river, to keep boots dry, take them off and wear sport sandals. If one does not have sport sandals, remove socks and boot liners, put boots back on and cross the river.

Hopping. Hopping is a technique used with rocks and will help one cross a river and stay dry. The following should be considered when hopping:

1. Plan the route. Evaluate the steps to take.
2. Decide which rocks are stable.
3. Test steps before committing.
4. If a step is unstable, move quickly to the next one.

Stepping in the water is an option. It is better to step into the water and get wet feet than to fall into it.

Crossing Rivers Using a Wooden Bridge or Ropes. Wooden bridges range from constructed bridges to logs placed across a stream. Always test a bridge first to see if it is fixed and to assess its stability. Crossing a log should be done one person at a time since a little weight can dislodge the log. If a bridge or a log is too narrow, unstable or high, shuffle across in a sitting position.

Unless trained in river rescue, hand-held rope should not be used. If a rope is fixed in place, it can be used to hold on to. Avoid getting tangled in the rope. Carabiners shall not be used to attach a person to the rope.

WATERLOGGED GROUND

Avoid crossing waterlogged ground if possible. It can be a very unpleasant experience.

If there is no other way around, one should plan a route through it. Footsteps of previous trekkers can tell how deep and hard the soil is.

Natural Hard Spots. When planning a route, aiming for hard spots in the ground can save some time. Trees and shrubs might indicate a solid piece of ground. Large rocks and clumps of hard grass are also good indicators.Trails. Sometimes, trails may go across waterlogged ground. Frequently used trails will often have small wooden pathways (looking like short bridges) built to help facilitate the crossing. Bridges made of fallen logs may also be used.

Trails. Sometimes, trails may go across waterlogged ground. Frequently used trails will often have small wooden pathways (looking like short bridges) built to help facilitate the crossing. Bridges made of fallen logs may also be used.

When crossing waterlogged grounds, boots should be tightly laced. Suction of mud may pull at the boots.

CROSSING ICE AND SNOW

Reading the Snow for a Safe Route. When planning a route, it is best to avoid rocky places. Rocks absorb heat causing the snow near them to melt faster. The soft snow around may not be firm enough to hold someone's weight. Before using a path, test the snow with trekking poles to prevent injuries. It is best to cross a large snowfield early in the morning when the snow is harder. As the sun goes up and becomes more powerful, snow melts unevenly and creates soft spots.

Ascending on Snow. When walking on snow, the conditions will govern the route. A new route may be created to ascend safely. Zig-zags may also be an option. If it is easier to go straight up, one should kick the snow several times to make solid steps to stand on. Before standing on these steps, one should always test body weight.

Trekking uphill through snow can be very exhausting. It is recommended to plan twice as much time to complete this kind of trek. Take breaks as required.

Crossing Frozen Water. Crossing frozen water requires caution. When crossing ice, one should use trekking poles to probe for holes or test the snow. On frozen water, do not necessarily rely on old footsteps. The route may not be safe if they are a few days old. Always test before advancing.

Ice is thinner in early winter and spring. During these seasons, one should try to go around any frozen water.

CONFIRMATION OF TEACHING POINT 5

QUESTIONS

Q1. When crossing water, what type of water should be avoided?

Q2. How can someone cross a bridge or a log when it is too narrow, unstable or high?

Q3. When planning a route covered in snow, why is it safer to avoid rocky places?

ANTICIPATED ANSWERS

A1. When crossing water, turbulence that causes white water, dark water, and a powerful current should be avoided.

A2. A person can cross a bridge using a sitting position and shuffling across.

A3. Rocks absorb heat causing the snow near them to melt faster. The soft snow around them may not be firm enough to hold one's weight.

END OF LESSON CONFIRMATION

QUESTIONS

Q1. Name three criteria to consider when selecting trekking poles.

Q2. What is scrambling?

Q3. When is the best time to cross a river?

ANTICIPATED ANSWERS

A1. The criteria to consider when selecting trekking poles are telescopic adjustment, grips, anti-shock system, baskets and tips.

A2. Scrambling is a term used to describe making one's way over rough, uneven terrain and rocks by climbing or crawling. Scrambling usually requires the use of both hands and feet.

A3. The best time to cross a river is early in the morning. Rivers run slower in the morning because the water is colder at night.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Knowing how to cross obstacles is a brief introduction to the world of trekking. It is also a good opportunity for the cadets to be challenged and to develop trekking skills. Crossing obstacles is the first step toward fun and challenging expeditions.

INSTRUCTOR NOTES/REMARKS

The cadets shall participate in a confirmation activity for this EO during the Navigation/Trekking FTX.

REFERENCES

C0-078 Mountain Equipment Co-op. (2007). *Lear: Packs and Poles*. Retrieved 28 February 2007, from http://www.mec.ca.

C0-111 (ISBN 978-0-9740820-2-8) Tawrell, P. (2006). *Camping and Wilderness Survival: The Ultimate Outdoors Book* (2nd ed.). Lebanon, NH: Leonard Paul Tawrell.

C0-145 OutdoorPlaces.com. (2004). Buying Guides, Trekking Poles. Retrieved 17 April 2007, from http://www.outdoorplaces.com/gear/buying_guide.htm.

C2-042 (ISBN 0-7566-0946-1) Berger, K. (2005). *Backpacking & Hiking*. New York, NY: DK Publishing, Inc.

C2-051 (ISBN 978-0-7153-2254-3) Bagshaw, C. (Ed.). (2006). *The Ultimate Hiking Skills Manual*. Cincinnati, OH: David & Charles.

TREKKING GEAR CARDS

Fanny Packs *ABC-of-Hiking, 2007, Shop Backpacks, Copyright 2007 by Max Lifestyle.net "Go Hiking like Max". Retrieved 19 April 2007, from http://www.abc-of-hiking/shopitems/backpacks/prowler5-backpacks.asp* Figure 13A-1 Fanny Pack	**Characteristics** • Small and unobtrusive; • Thin belt with pouch sewn on; • Lightweight; and • Maximum capacity should be 10 pounds.
Daypacks *ABC-of-Hiking, 2007, Shop Backpacks, Copyright 2007 by Max Lifestyle.net "Go Hiking like Max". Retrieved 17 April 2007, from http://www.abc-of-hiking/shopitems/backpacks/team-backpacks.asp* Figure 13A-2 Daypacks	**Characteristics** • Available in various models and sizes; • May have extra features (loops, pockets, hydration system); • Firm padding should be found on shoulder straps, waist belt and back padding; and • Capacity from 15 to 35 L.

Boots *Internet Outdoors Unlimited, 2003, Alpina Trekking Boots, Copyright 2003 by Internet Outdoors Unlimited. Retrieved 17 April 2007, from http://www.shopoutdoors.com/Alpinahikingboots.html* Figure 13A-3 Hiking Boot	**Characteristics** • Sturdy; • Lightweight; • Offers protection and support; • Comfortable; and • Correct size.
Water Carriers *ABC-of-Hiking, 2007, Shop Water Bottles, Copyright 2007 by Max Lifestyle.net "Go Mountain Biking like Max". Retrieved 17 April 2007, from http://www.abc-of-mountainbiking/shopitems/water-bottles/unbottle7002-water-bottles.asp* Figure 13A-4 Hydration System	**Characteristics** • Available in various models and capacities; • Lightweight and durable; • Many forms, colours and materials; and • Helps one to stay hydrated.

Socks *ABC-of-Hiking, 2007, Shop Hiking Socks, Copyright 2007 by Maxi Lifestyle.net "Go hiking like Max". Retrieved 17 April 2007, from http://abc-of-hiking.com/shopitems/socks/trailsock-socks.asp* Figure 13A-5 Sock	**Characteristics** • Made from various materials; • Absorbs moisture; • Provides insulation; and • Works better in pairs.
Rain Gear *ABC-of-Biking, 2007, Shop Outdoor Jackets, Copyright 2007, by Maxi Lifestyle.net "Go biking like Max". Retrieved 17 April 2007, from http://www.abc-of-mountainbiking.com/shopitems/jackets/stanza-jackets.asp* Figure 13A-6 Rain Jacket	**Characteristics** • Available in various models, colours, sizes and shapes; • Breathable fabric; • Lightweight; • Folds away; • Should have a hood; and • Waterproof.

Hats *ABC-of-Fishing, 2007, Shop Fishing Hats, Copyright 2007 by Maxi Lifestyle.net "Go Fishing like Max". Retrieved 17 April 2007, from http://www.abc-of-fishing.net/shopitems/hats/voodoo-hats.asp* Figure 13A-7 Hat	**Characteristics** • Absorbs sweat; • Available in various models, colours, sizes and shapes; • Protects head and neck from the sun and rain; and • Should have a wide brim.
Extra Insulation *ABC-of-Hiking, 2007, Shop Men's Sweatshirts, Copyright 2007 by Maxi Lifestyle.net "Go Hiking like Max". Retrieved 17 April 2007 from http://www.abc-of-hiking.com/shopitems/sweatshirts/covertcardigan-mens-sweatshirts.asp* Figure 13A-8 Fleece	**Characteristics** • Available in various models, colours, sizes and shapes; • Lightweight; • Fast drying; and • To be worn under a jacket.

Sunscreen and Insect Repellent *Forest Home Outfitters, 2007, Ooops I forgot. Retrieved 17 April 2007, from http://foresthomeoutfitters.org/index.php?cPath=37* Figure 13A-9 Sunscreen and Insect Repellent	**Characteristics** • Protects against exposure from the sun; and • Wards off insects.
Camera and Film *WP ClipArt, 2007, Camera Section. Retrieved 18 April 2007 from http://www.wpclipart.com/camera/index.html* Figure 13A-10 Digital Camera	**Characteristics** • Various sizes, models and colours; • Records memorable moments; and • Uses batteries.

Bathing Suit and Towel

Simply Swim, 2007, Arrow One Piece, Copyright 2007 by Hostshopping.co.uk. Retrieved 17 April 2007, from http://cylinder-bag.hotshopping.co.uk/swimsuits.html

Figure 13A-11 One-piece Bathing Suit

Morth Marine Austria, 2007, Cliff Swim Trunk, Copyright 2007 by Vorbehaltich Tippfehler Zuletzt. Retrieved 17 April 2007, from http://www.marine-moerth.com/Hellyhansenl.hmt

Figure 13A-12 Bathing Suit

Characteristics

- Comfortable;
- As to fit the person; and
- Allows a person to go for a swim or wash.

Binoculars

ABC-of-Hiking, Shop Binoculars, Copyright 2007 by Maxi Lifestyle.net "Go Hiking like Max". Retrieved 17 April 2007, from http://www.abc-of-hiking.com/shopitems/binoculars/echocompact-binoculars.asp

Figure 13A-13 Binoculars

Characteristics

- Various sizes and models; and
- Views objects, routes and wildlife from a far distance.

WEATHER FORECAST SCENARIOS

Scenario A: Sunny Day

The last weekend in June, your cadet corps is going on a trek. The weather forecast for your region says it will be sunny throughout the weekend. What should you bring?

Clothing	Personal Items
• balaclava; • extra pair of pants, shirt and socks; • face mask; • gloves; • insulated pants; • jacket; • mittens; • neck gaiter; • pants; • parka; • parka hood; • fleece jacket; • raingear (jacket and pants); • scarf; • shirt; • shorts; • sweater; • tilley cap; • toque/cap; • turtleneck; • undershirt; • vest; and • windbreaker.	• cookware and utensils; • extra food (energy bars, dried fruit or nuts, hard candies, etc.); • extra clothing (warm clothing and raingear); • first aid kit; • flashlight; • insect repellent; • lip balm; • money; • pen and paper (notebook); • personal hygiene kit; • personal medication; • pocket knife or multi-tool; • sunscreen and sunglasses; • a signalling device; • water container; • water filter; and • waterproof matches.

Scenario B: Rainy Day

During your fall navigation/trekking FTX, the Red Star cadets are going on a trek. For the weekend, the weather forecast says it might be windy and rainy. What should you bring?	
Clothing	**Personal Items**
• balaclava; • extra pair of pants, shirt and socks; • face mask; • gloves; • insulated pants; • jacket; • mittens; • neck gaiter; • pants; • parka; • parka hood; • fleece jacket; • raingear (jacket and pants); • scarf; • shirt; • shorts; • sweater; • tilley cap; • toque/cap; • turtleneck; • undershirt; • vest; and • windbreaker.	• cookware and utensils; • extra food (energy bars, dried fruit or nuts, hard candies, etc.); • extra clothing (warm clothing and raingear); • first aid kit; • flashlight; • insect repellent; • lip balm; • money; • pen and paper (notebook); • personal hygiene kit; • personal medication; • pocket knife or multi-tool; • sunscreen and sunglasses; • a signalling device; • water container; • water filter; and • waterproof matches.

Scenario C: Cold and Snowy Day

During your winter adventure training activities FTX, the Red Star cadets are going on a trek. For the weekend, the weather forecast says it will snow and the temperature will be -25 degrees. What should you bring?

Clothing	Personal Items
• balaclava; • extra pair of pants, shirt and socks; • face mask; • gloves; • insulated pants; • jacket; • mittens; • neck gaiter; • pants; • parka; • parka hood; • fleece jacket; • raingear (jacket and pants); • scarf; • shirt; • shorts; • sweater; • tilley cap; • toque/cap; • turtleneck; • undershirt; • vest; and • windbreaker.	• cookware and utensils; • extra food (energy bars, dried fruit or nuts, hard candies, etc.); • extra clothing (warm clothing and raingear); • first aid kit; • flashlight; • insect repellent; • lip balm; • money; • pen and paper (notebook); • personal hygiene kit; • personal medication; • pocket knife or multi-tool; • sunscreen and sunglasses; • a signalling device; • water container; • water filter; and • waterproof matches.

Weather Forecast Scenarios – Answer Sheet

Clothing	Personal Items

WEATHER FORECAST SCENARIOS – ANSWER KEY

Sunny Day Scenario	Rainy Day Scenario
• extra pair of pants, shirt and socks; • jacket; • pants; • fleece jacket; • raingear (jacket and pants); • shirt; • shorts; • sweater; • sweater; and • windbreaker.	• extra pair of pants, shirt and socks; • gloves; • jacket; • pants; • fleece jacket; • raingear (jacket and pants); • scarf; • shirt; • sweater; • tilley cap; • toque/cap; • turtleneck; • undershirt; • vest; and • windbreaker.
• cookware and utensils; • extra food (energy bars, dried fruit or nuts, hard candies, etc.); • extra clothing (warm and including the raingear); • first aid kit; • flashlight; • insect repellent; • lip balm; • money; • pen and paper (notebook); • personal hygiene kit; • personal medication; • pocket knife or multi-tool; • sunscreen and sunglasses; • a signalling device; • water container; • water filter; and • waterproof matches.	• cookware and utensils; • extra food (energy bars, dried fruit or nuts, hard candies, etc.); • extra clothing (warm and including the raingear); • first aid kit; • flashlight; • insect repellent; • lip balm; • money; • pen and paper (notebook); • personal hygiene kit; • personal medication; • pocket knife or multi-tool; • sunscreen and sunglasses; • a signalling device; • water container; • water filter; and • waterproof matches.
* The items underlined are not mandatory but are acceptable.	

Cold and Snowy Day Scenario	
• balaclava; • extra pair of pants, shirt and socks; • face mask; • gloves or mittens; • insulated pants; • jacket; • neck gaiter or scarf; • pants; • parka; • parka hood; • fleece jacket; • shirt; • sweater; • toque/cap; • turtleneck; • undershirt; • vest; and • windbreaker.	• cookware and utensils; • extra food (energy bars, dried fruit or nuts, hard candies, etc.); • extra clothing (warm and including the raingear); • first aid kit; • flashlight; • insect repellent; • lip balm; • money; • pen and paper (notebook); • personal hygiene kit; • personal medication; • pocket knife or multi-tool; • sunscreen and sunglasses; • a signalling device; • water container; • water filter; and • waterproof matches.
* The items underlined are not mandatory but are acceptable.	

STRETCHES AND EXERCISES

EXERCISES TO BUILD BODY STRENGTH

Legs

Abductor Raise. Lie on the floor on the left side with the left leg slightly bent. Place the right hand in front for support. Keeping the right leg straight and in line with the body, raise it with a slow, controlled movement. Hold for one second, lower and then repeat. Repeat the exercises a minimum of 10 times on both sides.

Yahoo Health, 2007, Basic Muscle-conditioning Exercises, Copyright 2002 by Nucleus Communications Inc. Retrieved 29 March 2007, from http://health.yahoo.com/topic/weightloss/overview/article/healthwise/popup/zm2427

Figure 13D-1 Abductor Raise

Lunge. Keep hands on sides with shoulder-width apart. Step forward with one leg, bending both knees until the thigh is parallel with the knee. Push back to starting position. Alternate legs. Do not let back knee touch the ground. Repeat this exercise a minimum of 10 times on both sides.

Department of Public Health County of Los Angeles California, 2006, LAPublicHealth.org/Strength Training, Copyright 2006 by LADPH. Retrieved 27 March 2007, from http://www.lapublichealth.org/physact/physactstrength.htm

Figure 13D-2 Lunges With Weights

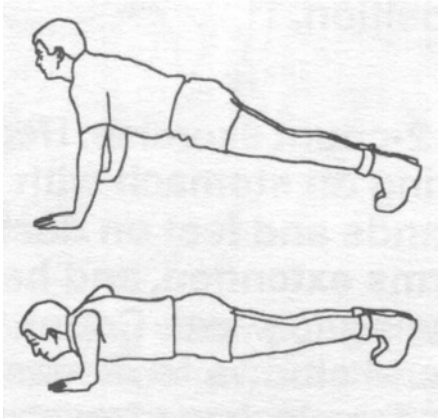
Glutes Raise. Hands in front shoulder-width apart. The back should stay straight. Keeping the right leg bent, raise it into the air. Press up into the heel. Count two seconds up and two seconds down. Repeat a minimum of 10 times on both sides.

Bodybuilding.com, 2007, Exercise Guides-Glute Kickback, Copyright 2007 by Bodybuilding.com. Retrieved 29 March 2007, from http://bodybuilding.com/fun/exercises.php?mainmuscle=glute

Figure 13D-3 Glutes Raise

Arms

Pushups. Place hands directly under the shoulders, keeping fingers pointed forward and legs in line with the body. Lower the body toward the floor without touching it and then push off the floor to the start position. Do as many as you can.

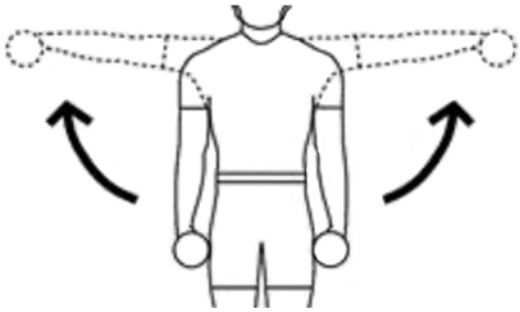


The Fitness Motivator.com, 2006, Add these Basic Exercises to your fitness plan. Retrieved on 29 March 2007, from http://www.the-fitness-motivator.com/basicexercises.html

Figure 13D-4 Push Up

Back and Shoulders

Lateral Raise With Weights. Hold weights at the sides, palms facing in. Slowly raise arms to shoulder level and lower. Keep arms and wrists straight. This exercise should be repeated a minimum of 10 times on both sides.

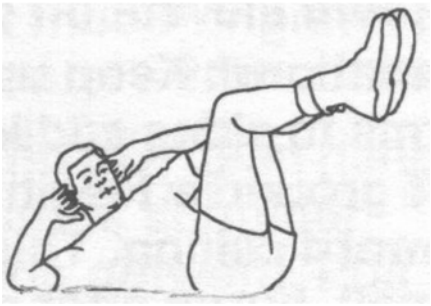


Weight Lifting Workout Routines, 2006, Shoulder Exercises, Copyright, 2006 by Weight Lifting Workout Routines. Retrieved 29 March 2007, from http://www.weight-lifting-workout-routines.com/shoulder-exercises.html

Figure 13D-5 Lateral Raises With Weights

Stomach

Crunches. Lie on the back bringing the legs up over the hips and cross the ankles. Place the arms either on the thighs, across the chest or beside the head (hardest). Slowly curl up using abs to lift shoulders from ground at the same time. Do not swing legs. Repeat a minimum of 10 times on both sides. The number of repetitions can increase with comfort level.

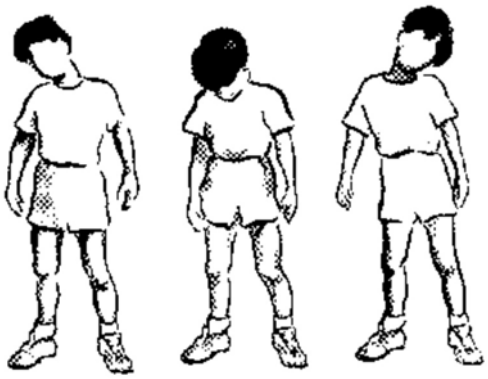


The Fitness Motivator.com, 2006, Add these Basic Exercises to Your Fitness Plan. Retrieved on 3 April 2007, from http://www.the-fitness-motivator.com/basicexercises.html

Figure 13D-6 Crunches Position

STRETCHING EXERCISES BEFORE AND DURING THE TREK

Neck. Slowly roll the head across the chest from shoulder to shoulder. Do not roll head backwards.



Moving on the Spot: A Collection of 5-Minute Stretch and Movement Sessions, by B. Hanson, 1999, Toronto, ON: Toronto Public Health. Retrieved 26 October 2006, from http://www.lin.ca/resource/html/dn3.htm#l1

Figure 13D-7 Neck Stretch

Shoulders. Stand and raise the top of the shoulders toward the ears until a slight tension is felt in neck and shoulders. Hold for five seconds. Then relax shoulders downward. This exercise can be repeated several times.

University of Michigan Occupational Safety & Environmental Health, 2007, Basic Office Stretches, Copyright 2007 by The Regents of the University of Michigan. Retrieved 28 March 2007, from http://www.oseh.unmich.edu/ergonomics_intro.hmtl

Figure 13D-8 Shoulders Stretch

Triceps and Top of Shoulders. Stand up and bring the right arm over the head, bent at the elbow. Use the left hand to gently pull the arm down. Hold this position for a minimum of 10 seconds. This exercise should be repeated a minimum of 10 times on both sides.

Smart Start: A Flexible Way to Get Fit. Retrieved 26 October 2006, from http://www.in-motion.ca/walkingworkout/plan/flexibility/

Figure 13D-9 Triceps Stretch

Shoulders, Arms and Chest. Interlace fingers behind the back. If this feels fairly easy, then lift the arms up behind the back until a stretch is felt in the arms, shoulders, or chest. Hold for 10 to 15 seconds. Keep chest and chin out.

University of Michigan Occupational Safety & Environmental Health, 2007, Basic Office Stretches, Copyright 2007 by The Regents of the University of Michigan. Retrieved 28 March 2007, from http://www.oseh.unmich.edu/ergonomics_intro.hmtl

Figure 13D-10 Shoulders, Arms and Chest Stretch

Hamstrings, Back Knees and Legs. Stand with feet shoulder-width apart and pointed straight ahead. Slowly bend forward from the hips. Keep your knees slightly bent. Go to the point where a slight stretch is felt in the back of the legs. Hold for 10 to 15 seconds.

PC Coach, 2005, Stretching for Runners, Copyright 2005 by Biometrics Inc. Retrieved on 29 March 2007, from http://www.pccoach.com/newsletters/may05/stretching.htm

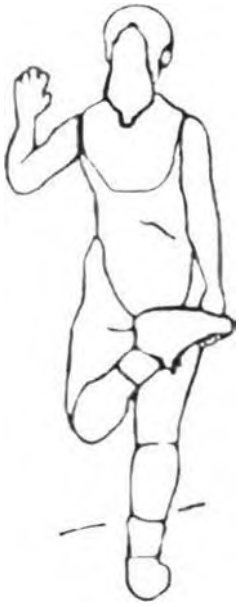
Figure 13D-11 Hamstring, Back Knees and Leg Stretch

Front Hip and Lower Back Area. Start with one leg in front of the other, with the ankle of the front leg directly below the front knee. The other knee is resting on the ground. Place hands on top of each other on the thigh, just above the knee. Hold for 10 to 15 seconds and repeat for the other side.

ARC Committed to Curing Arthritis, 2007, Back Pain, Copyright 2007 for Arthritis Research Campaign. Retrieved 27 March 2007, from http://www.arc.org.uk/about_arth/booklets/6002/6002

Figure 13D-12 Stretch for Hip and Lower Back Area

Quads and Knees. Hold the top of the right foot with the left hand and gently pull the heel toward the buttocks. Hold for 10 to 15 seconds and repeat for the other leg.



Women's Heart Foundation, 2005, Stretching Exercises for Women, Copyright 2005 for Women's Heart Foundation. Retrieved 28 March 2007, from http://www.womensheart.org/content/exercises/stretching_exercises.asp

Figure 13D-13 Quads and Knees Stretch

Squat. Squat down with feet flat and toes pointed out at 15 degrees. Heels should be apart depending on how flexible one is. Keep the knees to the outside of the shoulders, directly above the big toes. Hold for 15 to 30 seconds. Using a fence or pole for balance is acceptable.

The Back Rack, 1999, Cycling Stretches After Riding, Copyright 1999 by Stretching Inc. Retrieved 29 March 2007, from http://thebikerack.com/page.cfm?pageId=247

Figure 13D-14 Squat Position

Ankles. Lift the left foot off the ground and rotate the foot and ankle 10 to 15 times clockwise and then counterclockwise. Repeat for the right foot and ankle.

Women's Heart Foundation, 2005, Stretching Exercises for Women, Copyright 2005 by Women's Heart Foundation. Retrieved 28 March 2007, from http://www.womensheart.org/content/exercises/stretching_exercises.asp

Figure 13D-15 Ankle Rotation

CHAPTER 14

PO 224 – IDENTIFY IMMEDIATE ACTIONS TO TAKE WHEN LOST

ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 1

EO M224.01 – DESCRIBE IMMEDIATE ACTIONS TO TAKE WHEN LOST

Total Time: 60 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TP1 to TP3 to present basic or background material.

An in-class activity was chosen for TP4 as it is an interactive way to reinforce the actions to take when lost, to provoke thought and to stimulate interest among cadets.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to describe the immediate actions to take when lost.

IMPORTANCE

It is important for cadets to have the ability to take action when lost as to increase their chances of survival.

Teaching Point 1 **Identify S.T.O.P. Principles**

Time: 10 min Method: Interactive Lecture

Read to the cadets the *Cadence* article located at Annex A as the introduction to this TP. This article is intended to grab the cadets' attention and emphasize the importance of the actions to take when lost, highlighting the possibility that any cadet can get lost in the field.

It is important to note the cadet was found because of her training.

Once the article in Annex A has been read to the cadets, open the first part of the lesson by questioning the cadets on the following:

Q1. How did cadet Stephanie Leger become lost?

Q2. What action did she take upon accepting the fact that she was lost?

Answers the cadets provide will not be corrected, however they will be used as a means to get the cadets thinking about what they should do in such a situation. At the end of this TP the previous questions will be asked again to recognize any differences in answers.

Emphasize the importance of the S.T.O.P acronym as the first action to take upon recognition of becoming lost. Follow up this short story with a more detailed explanation of the S.T.O.P acronym with the information provided.

Getting lost can be as simple as leaving a hoochie to go to the latrine and becoming disoriented as experienced by cadet Stephanie Leger, or by following an incorrect compass course on a trek. Once it is determined that one is lost the best thing to do is to stay in one place, keep calm and try to gather information to determine one's location. The first 30 minutes of being lost is when people panic and tend to make the biggest mistakes. Following the acronym S.T.O.P. – Sit, Think, Observe, and Plan will help a lost cadet to think through the situation and make good decisions.

S.T.O.P.

Sit. Sit where you are! Do not panic. Many lost people waste valuable energy and risk injury by panicking – running aimlessly, continuing to travel after dark, or walking in circles. If a lost person decides to wander in an attempt to find their location, in most cases they will become more lost, increasing the distance between the known points of their course. This wandering will only increase the size of the search area, increasing the time it will take for a rescue team to locate an individual. As long as there is no immediate danger, stay in one place.

Think. Think about immediate and future dangers and the factors involved in the situation. Consider the time of day, personal physical condition, and the last time water or food was consumed. Try to list the options that are available to you.

Observe. Observe and listen for the signals of rescuers. Study the immediate environment, determining weather, terrain and resources available. Look around in the immediate area for a shelter location, fresh drinking water, and for clues of the current location.

Plan. Plan the best course of action – maybe it is close to dark and consideration should be given to setting up shelter, finding water or starting a fire. Include how to signal rescuers in the plan.

Once the S.T.O.P. acronym is understood, ask the following questions again in reference to the *Cadence* article in Annex A.

Q1. How did cadet Stephanie Leger become lost?

Q2. What action did she take upon accepting the fact that she was lost?

The cadets should now have a better understanding of what cadet Leger went through and the actions she took. The anticipated answers are listed below.

A1. She had wandered from her site and as a result of the approaching nightfall she was unable to find her campsite.

A2. When she realized she was lost, she followed the acronym S.T.O.P—Sit, Think, Observe, Plan.

Use their new answers and form a correlation between their previous answers. Emphasize again the importance of the S.T.O.P acronym as the first action to take when lost.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. When a person is lost, when do the biggest mistakes generally occur?

Q2. What does the acronym S.T.O.P. mean?

Q3. What should one observe?

ANTICIPATED ANSWERS

A1. The biggest mistakes occur in the first 30 minutes of being lost.

A2. Sit, Think, Observe and Plan.

A3. When lost, a cadet should observe the immediate environment, weather, terrain and resources available. Look for a shelter location, fresh drinking water, and for clues of the current location.

Teaching Point 2 **Discuss How to Control Fear and Panic When Lost**

Time: 10 min Method: Interactive Lecture

Many cadets will have fears of various things. Take the opportunity in this TP to bring to light some of the cadets' fears.

1. Open this TP by conveying to the cadets a personal fear (e.g. heights). This should open the door, encouraging the cadets to answer the following questions.
2. Question the cadets on what some of their fears are (fears can be of any type) and record them on flipchart paper/chalk board/whiteboard.
3. Categorize their fears in similar groups.

To feel fear is normal and necessary. It is nature's way of giving a person an extra shot of energy or adrenaline. Fear is a very normal reaction for people faced with an emergency which threatens their life.

Providing the information below discuss how the effects of fear and panic may affect a person.

EFFECTS OF FEAR AND PANIC

How individuals react to fear depends more on one's state of mind than on the situation. In any stressful, unplanned, or threatening situation, fear may overpower rational thinking and can ruin the chances of survival. Fear may also improve chances of survival. Since something can usually be done to improve any situation, accepting fear as a natural reaction to a stressful situation could lead to constructive behaviour and could increase one's chance of survival.

Providing the information below discuss how the sense of hopelessness contributes to fear.

FACTORS THAT CONTRIBUTE TO FEAR

The feeling of helplessness and the sense of hopelessness are factors that contribute to the sense of fear. Fear must be recognized, accepted, and if possible, used to one's advantage by channelling the adrenaline towards the tasks at hand. The effects of fear can be battled by identifying each factor, understanding and coping with it.

Providing the information below discuss each category of fear and ask the cadets what are some ways they may personally see themselves dealing with and overcoming each fear.

DEALING WITH FEAR

There are many common fears that arise when lost in the field. Addressing and understanding these fears may help one to survive for a prolonged period when lost. The list below explains how to deal with each fear.

Fear of the Unknown. What is out there? What is going to happen to me? Where is it safe? By accepting this fear as normal, one can remain calm and begin to answer each question. Do not criticize yourself for having critical or negative thoughts, just concentrate on and resolve each question or problem calmly and confidently.

Fear of Personal Weakness. This leads to a negative attitude and promotes behaviour to give up. Everyone can do something, no matter how bad the situation. Have confidence in the equipment that may be carried and one's skill to use it. Compare the current situation to similar situations learned about in the past to get through.

Fear of Discomfort. This causes people to continue into a bad storm in order to try to return to the security of a base camp where food and warmth are plenty, instead of stopping and making a safe, although uncomfortable, emergency shelter for the night before they are soaked, exhausted, hungry and hypothermic.

Fear of Being Alone. Even the independent can feel the effects of loneliness unless steps are taken to adapt to, and deal with the isolation. A strong imagination and sense of humour will help.

Fear of the Dark or Animals. People with phobias can easily imagine their worst nightmares coming true, especially in the stressful survival situation. Again, approach each fear with an action plan and an understanding of this fear in context with the whole situation.

Fear of Suffering or Death. This may be the strongest ally in survival. Keep the thought that one must act to survive. By accepting this possibility, and not dwelling on it, one can determine if their plans will provide them with security in their current situation. Have confidence in the rescuers abilities to locate a person.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. How does fear affect a cadet when lost?

Q2. What factors contribute to fear?

Q3. How does the fear of discomfort affect cadets?

ANTICIPATED ANSWERS

A1. Fear can overpower rational thinking and could ruin the chances of survival. It may also improve them.

A2. Helplessness and the sense of hopelessness contribute to fear.

A3. This causes people to continue into a bad storm in order to try to return to the security of a base camp, instead of stopping and making a safe shelter to rest in.

Teaching Point 3 **Identify the Five Elements of Survival**

Time: 10 min Method: Interactive Lecture

The instructor shall introduce this TP as the five elements of survival and relate the information to what the cadets will be trained on in further lessons (e.g. identify emergency shelters, lighting fires and cooking food).

FIVE ELEMENTS OF SURVIVAL

After successfully completing the S.T.O.P. action and recognizing a survival situation, the lost individual shall take inventory of all the food and equipment on hand and proceed to implement the five elements of survival. These are listed in order of priority.

1. **Attitude.** Maintaining a positive attitude is essential. One can survive by staying calm, using all available resources, and prioritizing personal needs.

2. **Shelter.** A shelter is designed to provide protection from the weather and, depending on the conditions, protect a person from either hot or cold temperatures. Hypothermia and hyperthermia are two of the greatest dangers in a survival situation. A proper shelter can help prevent these from occurring. In a desert scenario, for example, the goal is to stay under a shelter, shaded from the effects of the sun. In cold weather situations, the shelter will provide insulation.

3. **Water.** Water is the most essential nutrient for the human body. Even when thirst is not extreme it can dull your mind. Lack of water will slowly degrade the ability to survive. With adequate shelter and water you can survive for weeks.

4. **Fire.** In a survival situation, fire provides heat and light, and signals to rescuers. Cold weather not only lowers the ability to think, but it also lowers one's will to do anything. Even a few degrees drop in body temperature can affect the ability to make reasonable decisions.

5. **Food.** Individuals in good physical condition can go for many days or even weeks without food. Your goal in a wilderness survival situation is to be located in the shortest time possible, so in most cases you will be located long before food becomes a survival issue. However it is always important to prepare for the worst and find ways to supply the body with substance, through berries, fish, animals, birds, etc.

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

Q1. What are the five elements of survival?

Q2. What is the one essential nutrient the body requires to function?

Q3. What does a shelter provide?

ANTICIPATED ANSWERS

A1. Attitude, shelter, water, fire and food.

A2. Water.

A3. Shelter provides protection from the weather and, depending on the conditions, protects you from either hot or cold temperatures.

Teaching Point 4 **Develop a Plan**

Time: 20 min Method: In-class Activity

ACTIVITY

OBJECTIVE

The objective of this activity is to have the cadets apply the actions to take when lost to a given scenario.

RESOURCES

- Pen and/or pencils (one per cadet);
- Flip chart marker (one per group); and
- Flip chart paper (one sheet per group).

ACTIVITY LAYOUT

Groups shall be placed apart discouraging distraction between groups.

ACTIVITY INSTRUCTIONS

1. Divide the cadets into groups of no more than four.
2. Give each group a marker and a piece of flipchart paper.
3. Present a scenario or assign a different one to each group and allow the cadets 10 minutes to employ the S.T.O.P. acronym to a scenario provided.
4. Allow each group two minutes to present their plan to the other groups.

5. After the groups have finished presenting the instructor will provide feedback on the scenario. Feedback should summarize that attempting each path could cause a cadet to get more lost. Applying the S.T.O.P. actions will increase the chances that the cadet is found in a timely manner.

Lost Cadet (Scenario A)

Your cadet unit is participating in a weekend bivouac FTX where trekking a distance is involved. During the final leg of the trek, your shoelaces become undone and you stop to tie them as the group proceeds around a bend in the path. You are taking much longer than usual. Assuming the group continued on the same path, you take your time enjoying being by yourself on the path. As you round the corner the path opens into a small clearing that splits into four different routes. Concerned you will get into trouble by leaving the group you decide to try one of the routes and speed to catch up.

While travelling down the path you begin to realize this is probably not the correct route. The trek began during the late afternoon and you can see the sun is now getting low in the sky. You have travelled quickly on this path for a short period of time, when you realize you have taken the wrong path. You reassess your location and figure you must have made a mistake at the clearing. You head back on the path to the clearing hoping someone returned for you. Upon reaching the clearing no one is waiting for you. It is close to dark and there are three paths, one of which leads to the bivouac site.

You are lost, what should you do?

Lost Cadet (Scenario B)

Your cadet unit's Silver and Gold Star cadets have just finished an extensive three-day trek. The trek covered over 30 km and now everyone is resting at the rendezvous point for the arrival of the bus to transport all cadets back to the home unit. It is mid-afternoon and many cadets are relaxing, resting their sore, exhausted bodies. The cadet WO is tasked to maintain a watch on all cadets and set boundaries inside which the cadets must remain.

When the bus arrives many of the cadets are eager to load the equipment and board the bus in anticipation of going home. After the bus is loaded, the cadet WO makes a quick count confirming all cadets are on the bus.

When the cadets were told they could go and rest while awaiting the arrival of the bus, you decided to go for a quick nap. Proceeding to the edge of a clearing, you found some shrubs that you rested your pack against. Using it as a back rest, you quickly dozed off. As time passed you awoke from your nap and proceeded to the waiting area. Moving from the shrubs back to the clearing, you are shocked to find no one there.

The shock of being left alone is a scary thought. Your initial instinct was to walk out; however, you have no idea where you are and you are not familiar with the route the bus took. You were dropped off 30 km away and trekked here totalling three days travel.

What should you do?

Lost Cadet (Scenario C)

It is early September and your cadet unit has begun training for the orienteering competition that takes place in late October. You are new to orienteering, however after participating in a few orienteering events during summer training and a few previous practices with your cadet unit, you feel comfortable with your map-reading skills.

The orienteering coach recognizes your developing skill and decides to advance you to the intermediate training level for this practice. As you set out on the course, you realize that this will be more difficult than your previous orienteering practices. Travelling routes you have chosen, you find that the markers are placed in more difficult locations and the terrain the route crosses is more difficult to judge.

Enroute to your fourth control point you exit from a path and are faced with crossing a small river, the path looks to continue on the other side. The river appears to be rather deep. You decide to travel down the edge to find a shallow place to cross. After crossing you try to locate the path you saw to continue on course. You pace the side of the river for some time before finding the path you believed to be the correct route.

Continuing on course, you get the feeling you have travelled too far, however, you continue to move farther ahead. After a period of time you realize this is not the area you should be in at all—you must have taken the wrong path back by the river. The vegetation has changed and does not match what you see on the map. Stopping and inspecting the surrounding area you realize you have no idea where you are or where you have travelled. You are lost.

What should you do?

SAFETY

N/A.

END OF LESSON CONFIRMATION

The cadets' participation in the activity in TP4 will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Having an understanding of the immediate actions to take when lost and implementing them will help cadets increase their survival chances.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

C2-004 (ISBN 1-896713-00-9) Tawrell, P. (1996). *Camping and Wilderness Survival: The Ultimate Outdoors Book*. Green Valley, ON: Paul Tawrell.

C2-016 (ISBN 0-517-88783-5) Curtis, R. (1998). *The Backpacker's Field Manual: A Comprehensive Guide to Mastering Backcountry Skills*. New York, NY: Three Rivers Press.

ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 2

EO M224.02 – IDENTIFY THE SEVEN ENEMIES OF SURVIVAL

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Copy the handout located at Annex B for each cadet.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for this lesson to orient the cadets to the seven enemies of survival and to present background material.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall have identified the seven enemies of survival.

IMPORTANCE

It is important for cadets to understand the seven enemies of survival so they have the knowledge to combat them and increase their chances of survival.

Teaching Point 1 **Explain the Psychology of Wilderness Survival**

Time: 5 min Method: Interactive Lecture

THE PSYCHOLOGY OF WILDERNESS SURVIVAL

Research has shown that there are a number of factors that influence survival. Stress can have a negative effect on anyone who finds themselves in a survival situation. Sometimes the stress of becoming involved in a

survival situation can result in people making decisions that defy common sense. The inability to make rational decisions has caused injuries and death among rational, sensible people.

It is only natural for people who have been fed, clothed, and have lived in a world of modern convenience to be fearful of trying to provide for their own basic needs. But humans have the will and intelligence to adapt to almost any natural environment on earth. People are much stronger and more capable than they realize.

Survival is more about quality of spirit and character than it is about physical strength. Sometimes, the physically strongest person is the first to give up, while the weakest may show the most determination.

The most important psychological requirement to wilderness survival is to admit the reality of the situation and to react appropriately.

Remember that it is not feasible to have everything one wants, but one can have everything one needs!

Researchers have shown that children often adapt more easily to survival situations as they have not been conditioned to so much comfort. They are not afraid to get dirty, wet, and make the most fun out of what they do.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. When stressed about being in a survival situation, what do some people forget to use?

Q2. What is the most important psychological requirement of wilderness survival?

Q3. Which is more important in a survival situation, spirit and character or physical strength?

ANTICIPATED ANSWERS

A1. When stressed about being in a survival situation, some people forget to use their common sense.

A2. The most important psychological requirement of wilderness survival is to admit the reality of the situation and to react appropriately.

A3. Spirit and character are more important than physical strength in a survival situation.

Teaching Point 2 **Identify and Explain How to Combat the Seven Enemies of Survival**

Time: 20 min Method: Interactive Lecture

Challenge cadets to think about what the seven enemies of survival may be. As cadets guess the seven enemies review the points on that enemy as listed below.

GENERAL

Everyone has experienced the seven enemies of survival—pain, cold, thirst, hunger, fatigue, boredom and loneliness, but not many have experienced them to the point of threatening their survival. In a survival situation, these feelings become more severe and dangerous. The more information known about the seven enemies of survival, the better prepared a cadet will be able to combat them, increasing their chances of survival.

Pain. Pain is nature's way of letting the mind know that something is wrong. The mind can postpone the feeling of pain, if the mind and body are distracted doing something else. Once the mind recognizes pain, it can weaken the drive to survive. It can become overwhelming, even if it is not serious or prolonged. Keep spirits up to postpone the feeling of pain.

Cold. Cold is a more of a threat than most people think. Cold lowers the ability to think and distracts people from doing much more than thinking about getting warm. Because cold slows the body down, it is easy to feel the need to sleep. Cold numbs the mind, the body and the will. Stay moving to try to get warm.

Thirst. Thirst is the hidden enemy of survival. Even when someone has a mild thirst, the mind can feel dull. Like pain and cold, if attention is drawn to it, it can lower the drive to survive. Remember to drink water if it is available and safe. The feeling of thirst can fog the mind. One can become dehydrated even when water is available because they forget to drink or do not force themself to drink. Lack of water leads to dehydration as well as headaches and nausea.

Hunger. The feeling of hunger can affect a person's rational thought. Thirst and hunger can increase the chances of weakening to the effects of cold, pain and fear. This is especially true after three days, when the stomach shrinks and reduces its desire for food.

Fatigue. Even a small amount of fatigue (tiredness) can reduce mental ability. It is easy to become lazy and adopt a careless attitude. Fatigue is one of the biggest dangers to wilderness survival and may be responsible for some deaths. Although there is a real danger of over-exertion, fatigue may be caused by a feeling of hopelessness or frustration. Sleep allows someone to escape from a situation they feel may be too difficult to handle.

Boredom and Loneliness. Boredom and loneliness are two of the toughest enemies of survival because they are unexpected. When there is nothing to do, feelings of boredom and loneliness may creep up. Try to find some way to keep occupied. Working on a plan allows one to be constructive while staying busy. Building amenities for the site or something as simple as singing and talking can keep the cadet's mind occupied.

ACTIVITY

Time: 10 min

OBJECTIVE

The objective of this activity is to become familiar with the seven enemies of survival.

RESOURCES

- Copies of the puzzle located at Annex B (one per cadet); and
- Pens or pencils (one per cadet).

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Distribute a copy of the puzzle to each cadet.
2. Ensure all cadets understand how to complete a crossword puzzle (e.g. explain the difference between across and down answers).
3. Allow five to seven minutes for the cadets to complete the puzzle.

4. Correct the puzzle using the answer sheet located at Annex C.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 2

The cadets' participation in the activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

QUESTIONS

Q1. When stressed about being in a survival situation, what do some people forget to use?

Q2. What are the seven enemies of survival?

Q3. Why are boredom and loneliness two of the toughest enemies of survival?

ANTICIPATED ANSWERS

A1. When stressed about being in a survival situation, some people forget to use their common sense.

A2. The seven enemies of survival are pain, cold, thirst, hunger, fatigue, and boredom and loneliness.

A3. Boredom and loneliness are often unexpected and can creep up on you.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Being in the right frame of mind can make a great difference in how well one adapts in a survival situation. Knowing the seven enemies of survival can greatly increase your chances of combating them, if you become lost.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

A2-046 B-GA-217-001/PT-001 *Down But Not Out*. (ND). Ottawa, ON: Department of National Defence.

C2-068 (ISBN 0-425-10572-5) Brown, T & Morgan, B. (1983). *Tom Brown's Field Guide to Wilderness Survival*. New York, NY: The Berkley Publishing Group.

C2-069 (ISBN 0-9694132-0-3) Ferri, G. (2000). *The Psychology of Wilderness Survival*. Hanover, ON: Skyway Printing.

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ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 3

EO M224.03 – PREDICT WEATHER USING CLOUD FORMATIONS

Total Time: 30 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for this lesson to introduce predicting weather using cloud formations as a new subject and to present basic or background material.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to predict the weather using cloud formations.

IMPORTANCE

It is important for cadets to learn to predict weather using cloud formations so they can factor the weather into their survival plan, if they become lost. The weather will play an important role when selecting the best action to take while waiting for assistance from rescuers and when deciding the type of shelter to seek or construct.

Teaching Point 1 **Identify Types of Clouds**

Time: 15 min Method: Interactive Lecture

TYPES OF CLOUD FORMATIONS

The terms cumulus and stratus are used in most cloud names. In most cases, the height of a cloud will be the prefix (beginning element of a word) and the type will be the suffix (the end element of a word). Discuss the types of cloud formations.

Cloud names come from Latin. Some common words are:

- cirro = high;
- alto = middle;
- nimbus = rain;
- cirrus = curl;
- stratus (as a prefix) = low;
- stratus (as a suffix) = layer; and
- cumulus = pile.

Clouds are classified into two categories based on how they are formed – cumulus and stratus.

Cumulus. The typical clumpy, “puffy” cloud is formed in rising air currents. Cumulus clouds are evidence of unstable air conditions. Cumulus clouds are formed when small areas of rising air cool to the saturation point.

Stratus. These appear “spread out” and in sheets or horizontal layers. Stratus clouds are formed when a layer of moist air is cooled below its saturation point.

Precipitation falls from nimbus clouds.

Cool air can hold less water than warm air. As a given amount of air cools, humidity increases. When the humidity reaches 100 percent, clouds form. This is the saturation point.

FAMILIES OF CLOUDS

This section includes descriptions of clouds found in each family and weather predictions for each.

Cadets should be able to describe the look of each cloud. Weather will be discussed further in TP2.

Clouds are classified into four families – high clouds, middle clouds, low clouds and clouds of vertical development.

High Clouds

These clouds are very high in the sky and are composed of ice crystals. High clouds have the prefix “cirro”. There are three types – cirrus, cirrocumulus, and cirrostratus.

Cirrus. These clouds are wispy and look like cotton candy being pulled. They appear to be whitish wisps of cloud and are usually an indicator of fair weather.

Brotak, E., Wild About Weather, A Division of Sterling Publishing Co., Inc. (p. 87)

Figure 14-3-1 Cirrus Clouds

Cirrostratus. These clouds are whitish sheets that completely cover the sky. Cirrostratus clouds are normally see-through. When these clouds are in the sky, one can expect precipitation in a day or two.

Brotak, E., Wild About Weather, A Division of Sterling Publishing Co., Inc. (p. 87)

Figure 14-3-2 Cirrostratus Clouds

Cirrocumulus. These clouds are little, white and puffy. They form a huge sheet, covering the sky. When cirrocumulus clouds are in the sky, one can predict fair weather.

Brotak, E., Wild About Weather, A Division of Sterling Publishing Co., Inc. (p. 87)

Figure 14-3-3 Cirrocumulus

Middle Clouds

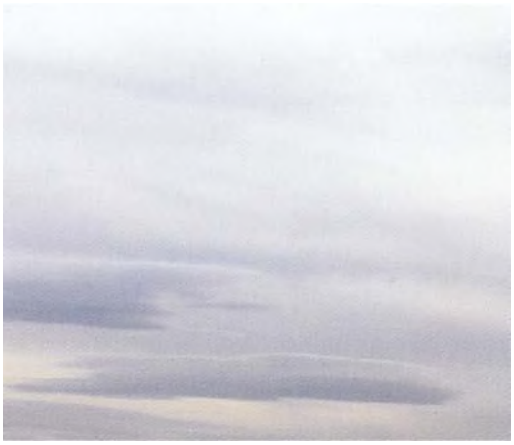
These clouds are in the middle of the sky and are composed of ice crystals or water droplets. Middle clouds have the prefix “alto”. There are two main types – altocumulus and altostratus.

Altocumulus. These clouds are very big and can be white or grey. They appear as a layer or a series of patches of rounded masses. Altocumulus clouds can be seen before fair or bad weather and have little value as an indicator of future weather developments.

Brotak, E., Wild About Weather, A Division of Sterling Publishing Co., Inc. (p. 87)

Figure 14-3-4 Altocumulus

Altostratus. These clouds appear as a greyish or whitish sheet that completely covers the sky. The sun can vaguely be seen through it. Altostratus clouds indicate increasing moisture and usually precede precipitation by 24 hours or less.



Brotak, E., Wild About Weather, A Division of Sterling Publishing Co., Inc. (p. 87)

Figure 14-3-5 Altostratus

Low Clouds

These clouds are low in the sky and are composed of water droplets. Low clouds are associated with “stratus”. There are three types – stratus, stratocumulus, and nimbostratus.

Stratus. These clouds appear as low, dull, greyish sheets that completely cover the sky (resembling fog). During the day, the sun cannot be seen. They can produce drizzle or very light rain or snow. When deep clouds are above, the rain or snow can be heavier.

Brotak, E., Wild About Weather, A Division of Sterling Publishing Co., Inc. (p. 87)

Figure 14-3-6 Stratus

Stratocumulus. These appear as sheets of big puffy white or grey clouds. Stratocumulus clouds often appear in dark patches or rolls and are often thin with blue sky showing through the breaks. Snow or showers of rain are possible and can be heavy.

Brotak, E., Wild About Weather, A Division of Sterling Publishing Co., Inc. (p. 87)

Figure 14-3-7 Stratocumulus

Nimbostratus. These appear as dark grey layers of large, puffy clouds. When they produce precipitation, it is in the form of continuous rain or snow. The bottom of this cloud is often hidden by falling rain or snow, which may be heavy.

Brotak, E., Wild About Weather, A Division of Sterling Publishing Co., Inc. (p. 88)

Figure 14-3-8 Nimbostratus

Clouds of Vertical Development

These clouds may be very low in the sky. When the temperature is above freezing (higher than zero degrees), they are composed of water droplets. When the temperature is below freezing (lower than zero degrees), they are composed of ice crystals and water droplets. Clouds of vertical development are associated with “cumulus”. There are three types – cumulus, towering cumulus, and cumulonimbus.

Cumulus. These clouds are large, individual puffy clouds. They resemble cauliflower or cotton balls. The bottoms often appear dark and flat. They can often be seen on a warm day. When these clouds are in the sky one can expect fair weather, unless they begin to extend upwards.

Brotak, E., Wild About Weather, A Division of Sterling Publishing Co., Inc. (p. 88)

Figure 14-3-9 Cumulus

Towering Cumulus. These clouds build up into high towering masses. They have puffy, white tops but very dark bottoms. Towering cumulus clouds can produce showers and may develop into heavy ice or thunderstorms.

Brotak, E., Wild About Weather, A Division of Sterling Publishing Co., Inc. (p. 88)

Figure 14-3-10 Towering Cumulus

Cumulonimbus. These clouds are very dark at the bottom. They extend way up into the atmosphere and have flattened tops. When cumulonimbus clouds are in the sky, one can predict thunderstorms and windy, rainy conditions.

Brotak, E., Wild About Weather, A Division of Sterling Publishing Co., Inc. (p. 89)

Figure 14-3-11 Cumulonimbus

The long, narrow white clouds left behind jet airplanes are called contrails. They are formed by the moisture coming out of the engine and condensing in the very cold air.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. What are the three clouds found in the high cloud family?

Q2. What does an altocumulus cloud look like?

Q3. What does a nimbostratus clouds look like?

ANTICIPATED ANSWERS

A1. Cirrus, cirrostratus and cirrocumulus.

A2. These clouds are very big and can be white or grey. They appear as a layer or a series of patches of rounded masses.

A3. These appear as dark grey layers of large, puffy clouds.

Teaching Point 2 **Discuss How to Predict Approaching Weather Using Clouds**

Time: 10 min Method: Interactive Lecture

Being able to forecast weather using clouds is a great tool in the field. Discuss the signs that clouds give when the weather is going to change.

BAD WEATHER

When the weather is going to **change for the worse**, one will notice several general cloud activities. Signs of change for the worse are:

- Clouds (regardless of their formation) are thickening (darkening), increasing in number or joining together, forming layers, and/or lowering in elevation.
- Clouds are forming banks in the west with winds from the south.
- Clouds are moving in all directions, or contrary to the ground wind.
- Altostratus clouds are darkening and lowering.
- Altocumulus clouds are moving quickly across the sky or forming towers in the morning.
- Cumulus clouds are forming in the morning and stacking in the afternoon or moving from the south or south-west.

A halo around the moon indicates that the weather is going to change for the worse.

GOOD WEATHER

When the weather is going to **change for the better**, one will notice several general cloud activities. Signs of a change for the better are:

- Cloud cover is lifting, becoming lighter and small patches of blue sky are developing.
- Cumulus clouds are forming in the afternoon or floating alone without stacking.
- Stratocumulus clouds are drifting with the prevailing wind and remaining scattered.
- The condensation trail (‘contrail’) left by high altitude aircraft is dispersing quickly.
- Morning fog is burning off before noon.

THUNDERSTORMS/LIGHTNING

Thunderstorms. Thunderstorms are most common in the summertime. They are formed by cumulus clouds, feeding off warm and moist air. These clouds grow quickly during the day, driven by the heat from the sun. When dark cumulonimbus clouds begin to approach, one can expect a thunderstorm. The big feature of a thunderstorm is lightning.

Lightning. Lightning is an electrical discharge in the atmosphere. When cumulus clouds grow tall, they develop an electrical field. The top of the cloud, where there are lots of ice crystals, is normally positive. The bottom part of the cloud, filled with rain droplets, is normally negative. The ground has a positive charge. An electrical charge builds up and the atmosphere produces lightning.

Thunder. Thunder is the sound made when a lightning bolt heats the air and expands quickly. Since sound moves much slower than light, one can judge how far away a lightning bolt is by counting the seconds between seeing the flash and hearing the thunder. Each three second interval equals about one kilometre.

The fear of lightning is called *astraphobia*. The fear of thunder is called *brontophobia*.

As mentioned in TP1, weather can also be predicted simply from knowing the type of cloud in the sky. Discuss the expected weather for each type of cloud.

HIGH CLOUDS	
Cirrus	Normally an indicator of fair weather.
Cirrocumulus	Expect precipitation in a day or two.
Cirrostratus	Predict fair weather.
MIDDLE CLOUDS	
Altocumulus	Normally seen before fair or bad weather. Have little value as an indicator of future weather developments.
Altostratus	Expect precipitation in 24 hours or less.
LOW CLOUDS	
Stratus	Expect drizzle, light rain or snow.
Stratocumulus	Snow or showers are possible and can be heavy.
Nimbostratus	Expect rain or snow.
CLOUDS OF VERTICAL DEVELOPMENT	
Cumulus	Expect fair weather, unless they begin to extend upwards.
Towering Cumulus	Expect showers. May develop into heavy ice or thunderstorms.
Cumulonimbus	Expect thunderstorms and showery conditions.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. What are the common signs of a change in the weather for the worse?

Q2. What are the two middle clouds and what weather can be predicted when they are seen in the sky?

Q3. What is lightning?

ANTICIPATED ANSWERS

A1. Signs of change for the worse are:

- Clouds (regardless of their formation) are thickening (darkening), increasing in number or joining together, forming layers, and/or lowering in elevation.
- Clouds are forming banks in the west with winds from the south.
- Clouds are moving in all directions, or contrary to the ground wind.
- Altostratus clouds are darkening and lowering.
- Altocumulus clouds are moving quickly across the sky or forming turrets in the morning.
- Cumulus clouds are forming in the morning and stacking in the afternoon or moving from the south or south-west.

A2.

MIDDLE CLOUDS	
Altocumulus	Normally seen before fair or bad weather. Have little value as an indicator of future weather developments.
Altostratus	Expect precipitation in 24 hours or less.

A3. Lightning is an electrical discharge in the atmosphere. When cumulus clouds grow tall, they develop an electrical field. The top of the cloud, where there are lots of ice crystals, is normally positive. The bottom part of the cloud, filled with rain droplets, is normally negative. The ground has a relatively positive charge. An electrical charge builds up and the atmosphere produces lightning.

END OF LESSON CONFIRMATION

QUESTIONS

Q1. What are the three high clouds, including their description and weather prediction?

Q2. What are the three types of low clouds, including their description and weather prediction?

Q3. What are the common signs of a change in the weather for the better?

ANTICIPATED ANSWERS

A1. The high clouds include:

- **Cirrus.** These clouds are wispy and look like cotton candy being pulled. They have whitish wisps of cloud and are usually an indicator of fair weather.
- **Cirrostratus.** These clouds are whitish sheets that completely cover the sky. They are normally see-through. When these clouds are in the sky, one can expect precipitation in a day or two.
- **Cirrocumulus.** These clouds are little, white and puffy. They form a huge sheet, covering the sky. When these clouds are in the sky, one can predict fair weather.

A2. The low clouds include:

- **Stratus.** These clouds are low, dull, greyish sheets that completely cover the sky (resembling fog). During the day, the sun cannot be seen. They can produce drizzle or very light rain or snow. When deep clouds are above, the rain or snow can be heavier.
- **Stratocumulus.** These are sheets of big puffy white or grey clouds. They are often in dark patches or rolls and are often thin with blue sky showing through the breaks. Snow or showers of rain are possible and can be heavy.
- **Nimbostratus.** These are dark grey layers of large, puffy clouds. When they produce precipitation, it is in the form of continuous rain or snow. The bottom of this cloud is often hidden by falling rain or snow, which may be heavy.

A3. Signs of change for the better are:

- Cloud cover is lifting, becoming lighter and small patches of blue sky are developing.
- Cumulus clouds are forming in the afternoon or floating alone without stacking.
- Stratocumulus clouds are drifting with the prevailing wind and remaining scattered.
- The condensation trail (‘contrail’) left by high altitude aircraft is dispersing quickly.
- Morning fog is burning off before noon.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Being able to use the clouds to predict weather is a great tool when in a survival situation and when in the field. Weather is an important aspect of planning in any survival situation with respect to the type of shelter selected and the best course of action to take.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

A0-036 A-CR-CCP-121/PT-001 D Cdts 3 (2000). *Royal Canadian Army Cadet Reference Book*. Ottawa, ON: Department of National Defence.

A2-045 A-CR-CCP-263/PT-001/(ISBN 0-9680390-5-7) MacDonald, A.F. & Peppler, I.L. (2000). *From the Ground Up*. Millennium edition. Ottawa, ON: Aviation Publishers Co. Limited.

C2-016 (ISBN 0-517-88783-5) Curtis, R. (1998). *The Backpackers Field Manual: A Comprehensive Guide to Mastering Backcountry Skills*. New York, NY: Three Rivers Press.

C2-072 (ISBN 1-57990-468-8) Brotak, E. (2004). *Wild About Weather*. New York, NY: Lark Books, A Division of Sterling Publishing Co., Inc.

ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 4

EO M224.04 – IDENTIFY EMERGENCY SHELTERS

Total Time: 60 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Seek out or construct shelters for TP2 and TP3. It is imperative that cadets have a visual example of each shelter. However, it is understood that terrain differences may limit the ability to locate all shelters mentioned.

The definition of leeward is on or towards the side sheltered from the wind (e.g. if the wind is blowing against the front of a car the leeward side would be the rear of the car.)

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TP1 to TP3 to introduce factors to consider when identifying emergency shelters as a new subject and to present basic or background material.

A practical activity was chosen for TP4 as it is an interactive way to allow cadets to seek out emergency shelters in a natural setting.

INTRODUCTION

REVIEW

The review for this lesson is from the previous lesson M224.01 (Describe Immediate Actions To Take When Lost).

QUESTIONS

Q1. What does the acronym S.T.O.P stand for?

Q2. What are the five elements of survival?

Q3. What is the second element of survival when you find you are lost?

ANTICIPATED ANSWERS

A1. Sit, Think, Observe, Plan.

A2. Attitude, shelter, water, fire and food.

A3. Shelter.

OBJECTIVES

By the end of this lesson the cadet shall be expected to identify emergency shelters that are natural or improvised and ensure their site chosen will provide them with comfort throughout their stay.

IMPORTANCE

It is important for cadets to be able to identify a shelter or construct an emergency shelter because shelter is identified as one of the elements of survival. Construction of a shelter is the second survival element that should be completed once the cadets know they are lost.

Teaching Point 1 **Explain Factors to Consider When Selecting a Site for an Emergency Shelter**

Time: 15 min Method: Interactive Lecture

The instruction area for this lesson will meet the factors of site selection as detailed in TP1.

Cadets will be expected to identify a type of shelter by the end of this lesson. Introduce this TP by presenting the cadets with a scenario where they have become lost in the field and they have only a few hours of daylight left.

Shelter is their first concern. The location chosen to demonstrate the selection of a site should meet most if not all considerations when choosing a location. Question the cadets enquiring what they currently think of the location. These questions should get their thoughts thinking about what considerations they would take into account when choosing a site.

Continue this lesson by identifying the rest of the factors and considerations described in TP1.

During the summer months the need for shelter is not always a great concern however it should be. Even in winter a survivor may be tempted to set up a fire the first night rather than tackle the job of building or finding a shelter. When discussing the five elements of survival, shelter is the second survival element, before fire. A shelter provides protection from the elements, particularly wind and precipitation. Shelters improve morale and survival chances by providing comfort, security and a sense of accomplishment.

TERRAIN CONSIDERATIONS

There are Several Factors that Must be Considered When Selecting a Site. Locations to construct a shelter should meet certain criteria, to avoid being awoken during the night due to an over-looked problem.

Select an Area that is Large Enough for the Planned Shelter. Possible sites that are perfect in their natural form may be too small to accommodate the size of one person. Ensure that the site chosen can comfortably, considering the situation, fit oneself for the duration of the survival situation.

Select an Area that is Elevated and Provides Drainage. A site should provide dry footing and drainage of future rains. Keep back from rivers or lakes which may flood after a rain fall.

Identify Sheltered Areas that Protect From Wind, Rain and Sun. Shelter from the wind, rain and sun can be sought from boulders, hillsides, trees or whatever source may be available. In the summer a little breeze will reduce the number of insects and can keep one cool during hot summer days. During winter a shelter will separate the body from the elements and provide warmth. If the entrance of the shelter faces leeward (away from the wind), rain or snow will swirl over and drop inside. If the entrance faces windward, smoke and ashes from the fire will blow into the shelter. Place the back of the shelter into the wind (see Figure 14-4-6).

LOCATION CONSIDERATIONS

Proximity to a Water Source that Provides Potable Water and Food from Fishing. The availability of a nearby water source will reduce the amount of energy expended while collecting water. A source of water may also provide fishing grounds that may supply food.

Proximity to a Fuel Source for Fire During Cold Weather. Situating a shelter near a fuel source will reduce the amount of energy required to gather enough fuel for the fire.

Proximity to Building Materials. Although the shelter is an emergency shelter there is always the need to make what is natural more liveable. Situating the shelter near building supplies will reduce the amount of energy required to build and secure the shelter.

Proximity to Animal Trails or Holes. In the wild, the food chain is active. Beware of locating your shelter near the natural paths animals create. Where there are animals, there may be danger.

Select Areas that are Close to or can be Seen by Aircraft From Above. When lost in a wilderness area it is important to remember you have to establish contact with or attract the attention of searchers and rescuers. Staying in a site that is easily seen from above will increase your chances of being rescued.

Estimate the Time Required to Build a Shelter Before Night Fall. Depending on the amount of time available, one may choose to construct a simple emergency shelter for the night. Estimate the amount of daylight left when constructing a shelter by looking at the horizon. If the sun is near the horizon, there is not much daylight left.

The Entrance Should be Sheltered From the Wind and Preferably in the Direction of the Sun. Situating the shelter so the prevailing wind is blowing against the rear will help ensure the occupant will be able to maintain some heat inside. Face the entrance, if possible, into the sun allowing the sunshine into the shelter. This provides heat to the occupant.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. What are three terrain considerations one should take into account when selecting a shelter site?

Q2. What are three considerations of a site location that one should take into account?

Q3. Which way should the entrance of a shelter face?

ANTICIPATED ANSWERS

A1. Select an area that is large enough for the planned shelter, elevated and provides drainage, and helps protect from the wind, rain and sun.

A2. The location should be in close proximity to a water source that provides potable water and food from fishing. It should also be close to building materials but far from animal trails or holes.

A3. The entrance should face the leeward side (away from the wind).

Teaching Point 2 **Identify Types of Natural Shelters**

Time: 5 min Method: Interactive Lecture

Conduct a tour of actual shelters. Examples help illustrate what each shelter looks like and provide cadets with insight into each shelter's purpose.

Have cadets inspect each shelter type.

TREE HOLLOW

A tree hollow is a good natural shelter that can be used in a hurry when there is little time to construct something more permanent. It is often found under a tree, especially a large conifer. Lower branches hanging over the hollow may form a kind of roof to block out the wind and rain.

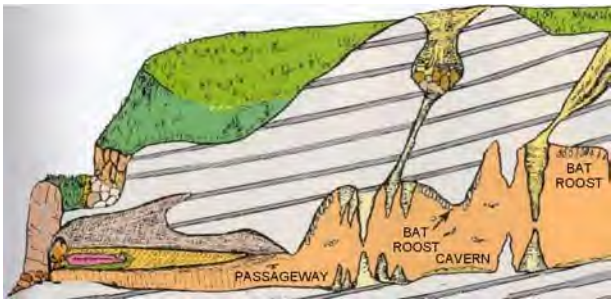
Berger, K., Backpacking and Hiking, DK Publishing, Inc. (p. 203)

Figure 14-4-1 Tree Hollow

CAVE

A cave is an ideal shelter as it offers a roof, constant temperature and is secure.

Caves are found along cliffs or along coast lines especially if the water levels have receded; however, these caves most likely were formed by wave action. Be cautious of high tide.



Tawrell, P., Camping and Wilderness Survival, Leonard Paul Tawrell (p. 409)

Figure 14-4-2 Cave

ROOT SHELTER

A root shelter will provide good separation from the wind with little preparation. Be cautious as water tends to pool at the base of the roots during a rain fall. The roots are used as the frame for the shelter and are located at the base of a fallen tree. Add additional branches or boughs as a windbreak and dig into the ground to improve the shelter.

Tawrell, P., Camping and Wilderness Survival, Leonard Paul Tawrell (p. 397)

Figure 14-4-3 Root Shelter

CONFIRMATION OF TEACHING POINT 2

The cadets' inspection of natural shelters will serve as the confirmation of this TP.

Teaching Point 3 **Identify Types of Improvised Shelters**

Time: 10 min Method: Interactive Lecture

Conduct a tour of actual shelters. Examples help illustrate what each shelter looks like and provide cadets with insight into each shelter's purpose.

Have cadets inspect each shelter type.

An improvised shelter is constructed from whatever is available, with little preparation. The type of shelter built will depend on local weather conditions, the materials available and how long the shelter is needed.

BOUGH SHELTER

A bough shelter, also known as a lopped tree shelter, makes use of a naturally fallen tree. With some preparation this shelter provides good cover from the elements. The fallen tree branches are cut from the centre of the tree, creating a hollow for shelter. The excess branches are woven through the remaining tree branches, making the shelter weatherproof.

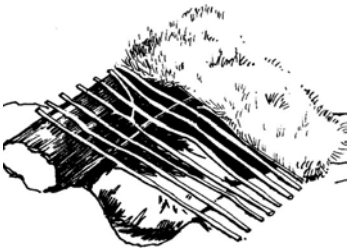
Wiseman, J., The SAS Survival Handbook, HarperCollins Publishers (p. 245)

Figure 14-4-4 Bough Shelter

FALLEN TRUNK

A log or fallen tree trunk makes a useful wind break on its own if it is against the wind. This shelter can be a quickly prepared temporary shelter when time for construction is limited; however, it can be developed into a more permanent shelter with some additional preparation.

If the trunk is small scoop out a hollow in the ground to increase the size of the shelter. The hollow should be opposite the wind (leeward side). A log also makes an excellent support for a lean-to roof of boughs.



Wiseman, J., The SAS Survival Handbook, HarperCollins Publishers (p. 245)

Figure 14-4-5 Fallen Trunk

LEAN-TO

The lean-to is one of the most practical and multipurpose shelters. It is easy to assemble and can be built using a support structure of two trees and some poles.

This shelter is constructed by erecting a horizontal crosspiece between trees. On the side facing towards the wind, lean sticks or branches at a 45 degree angle making a roof, and cover the roof with boughs to provide windproofing and waterproofing. If required, add cross ribbing to the roof to provide support for the objects that cover the roof. When using boughs, ensure they are laid upside down to allow rain to run off. Side walls can be added if necessary.

Tawrell, P., Camping and Wilderness Survival, Leonard Paul Tawrell (p. 457)

Figure 14-4-6 Lean-To

SNOW CAVE

A snow cave is made from snow drifts and typically provides shelter for a night or two.

To construct a snow cave, dig into a firm large snowdrift, make an entry hole at the low side of the drift and dig up from the entrance to carve out a sleeping shelf.

Block the entry hole with snow and poke ventilation holes in the ceiling to provide plenty of fresh air.

Berger, K., Backpacking and Hiking, DK Publishing, Inc. (p. 203)

Figure 14-4-7 Snow Cave

TEPEE

The tepee was developed by nomadic people, it can act as a more permanent shelter.

The tepee is a series of poles sloped in to lean against each other. The sloped poles can be covered with materials to provide a wind break or completely made up of poles. Depending on the materials at hand, they can be constructed quickly.

Tawrell, P., Camping and Wilderness Survival, Leonard Paul Tawrell (p. 105)

Figure 14-4-8 Tepee

CONFIRMATION OF TEACHING POINT 3

The cadets' inspection of improvised shelters will serve as the confirmation of this TP.

Teaching Point 4 **Locate Natural or Improvised Shelter Sites**

Time: 20 min Method: Practical Activity

ACTIVITY

OBJECTIVE

The objective of this activity is to allow the cadets to seek out natural shelters or improvised shelter locations.

RESOURCES

N/A.

ACTIVITY LAYOUT

Provide boundaries for cadets to explore.

ACTIVITY INSTRUCTIONS

- Divide cadets into groups of three or four.
- Have cadets seek out natural shelters and shelter locations.
- Cadets will have 15 minutes to identify a natural shelter or an improvised shelter location.
- Confirm each group has identified an appropriate shelter or shelter location.

SAFETY

The area chosen to conduct this activity will be given boundaries so the cadets will not wander off searching for natural shelters and setting up improvised shelters. A larger area may be used if additional supervision is provided.

END OF LESSON CONFIRMATION

The cadets' participation in the activity in TP4 will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Any cadet who is lost can find a natural shelter or construct a shelter quickly. Remember finding shelter is the second element to survival.

A cadet in a survival situation will now have the knowledge to find a shelter and prolong life while awaiting rescue.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

C2-004 (ISBN 1-896713-00-9) Tawrell, P. (1996). *Camping and Wilderness Survival: The Ultimate Outdoors Book*. Green Valley, ON: Paul Tawrell.

C2-008 (ISBN 0-00-653140-7) Wiseman, J. (1999). *SAS Survival Handbook*. London: HarperCollins Publishers.

C2-042 (ISBN 0-7566-0946-1) Berger, K. (2005). *Backpacking & Hiking*. New York, NY: DK Publishing, Inc.

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ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 5

EO M224.05 – PREPARE, LIGHT, MAINTAIN, AND EXTINGUISH A FIRE

Total Time: 90 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Prior to this lesson select a site to construct a fire and construct the following fires:

- tepee;
- crossbed; and
- crisscross/pyramid.

Have examples of fuel types as training aids.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TP1 and TP2 to introduce fire safety for preparing, lighting, maintaining, and extinguishing a fire.

Demonstration was chosen for TP3 as it allows the instructor to explain and demonstrate preparing, lighting, maintaining and extinguishing a fire.

A practical activity was chosen for TP4 as it is an interactive way to introduce cadets to preparing, lighting, maintaining, and extinguishing a fire, while allowing the cadets to experience this activity in a safe and controlled environment.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to prepare, light, maintain, and extinguish a fire.

IMPORTANCE

It is important for cadets to prepare, light, maintain and extinguish fires because, as one of the elements of survival, fire provides heat, a means to cook food and can be a signal for rescuers if the cadet becomes lost.

Teaching Point 1 **Discuss Fire Safety and the Steps to Follow When Lighting a Fire**

Time: 10 min Method: Interactive Lecture

Discuss how the Fire Weather Index and the Canadian Forest Fire Danger Rating System (CFFDRS) measures the possibility of forest fires.

Some cadets may have already experienced lighting a fire with other organizations.

Pay particular attention to any individuals who may exhibit bad habits when dealing with fire and work to correct their bad habits.

Safety is paramount when lighting a fire. Be sure fire safety equipment is available when lighting fires.

Fire has a strong, positive, psychological impact upon an individual in a survival situation. Fire is the most important survival tool after personal wilderness knowledge and is the fourth element to survival.

Lighting fires in the wilderness requires responsibility. Before planning to light a fire, whether in a survival situation or a weekend bivouac FTX, consideration must be given to the condition of the environment. Check with the appropriate authorities to obtain and review the fire regulations and restrictions for the training area.

FIRE WEATHER INDEX

Before conducting training in provincial or national parks, one must confirm that fires are allowed. Open fires are normally only allowed in designated areas. Open fires are fires that are not contained in a structure or housing that ensures the fire will not spread (e.g. barrel or fireplace).

Each park will clearly state their fire regulations and restrictions.

Parks commonly follow the Fire Weather Index, which provides an assessment of relative fire potential that is based solely on weather observations. Check with park administration for rules and regulations when planning to light fires within the park boundaries.

CANADIAN FOREST FIRE DANGER RATING SYSTEM (CFFDRS)

The CFFDRS is Canada's national system for rating forest fire danger. The system evaluates and integrates data to help managers predict woodland fire potential.

The CFFDRS provides an index (shown below) on how easy it is to ignite vegetation, how difficult a fire may be to control, and how much damage a fire may do.

BLUE	GREEN	YELLOW	ORANGE	RED
LOW	MODERATE	HIGH	VERY HIGH	EXTREME

D Cdts 3, 2007, Ottawa, ON: Department of National Defence

Figure 14-5-1 Fire Index

Low. Low chance of fires occurring. Fires that do occur are likely to be self-extinguishing and new ignitions are unlikely.

Moderate. Moderate chance of fires starting. These fires are creeping or gentle surface fires. They are easily contained by ground crews with water pumps.

High. High chance of fire starting. These fires are challenging for ground crews to handle and heavy equipment (tanker trucks and aircraft) are often required to contain the fire.

Very High. Very high chance of a fire starting. These fires are fast spreading and are of high intensity. They are hard to control and require aircraft support.

Extreme. The environment is very dry and chances of fire are extreme. These fires are fast spreading, of high intensity and very difficult to control.

Advise cadets they can review this information for themselves by looking up the CFFDRS on the internet for their area at https://nofc1.cfsnet.nfis.org/mapserver/cwfis/index.phtml.

MAINTAINING A SAFE FIRE SITE

Prior to starting a fire, some simple guidelines must be followed. Ensure fire safety equipment is available before starting a fire.

Shovel. A shovel provides a means to smother the fire. Shovelling dirt, gravel or sand on a fire reduces oxygen, thus extinguishing the fire.

Rake. A rake allows one to disperse burning material away from the fire. A rake can also be used to smother the fire by raking dirt, gravel, or sand onto the fire.

Pail Filled With Sand or Water. A pail of water or sand can be immediately thrown over a fire if it starts to get out of control. This item can also be refilled as many times as required.

Fire Extinguisher. A fire extinguisher is designed to tackle a fire for a short duration. It is very effective in extinguishing a small fire that is getting out of control.

CHOOSING A SAFE FIRE LOCATION

Before beginning to build a fire, think about the location. It should be placed for maximum warmth and convenience without sacrificing safety. Consider the following when choosing a safe fire location:

- The fire site should be high and dry.
- The area should be sheltered and away from windy areas to reduce flare ups.
- The site should be clear of over-hanging boughs and branches.
- All combustible materials shall be cleared from the fire site.
- The site should be four to six feet from the shelter entrance.

PREPARING A FIRE BARRIER

A fire ring or pit is a safety barrier that contains a fire within its boundaries and retains heat. By retaining heat one reduces the fire's ability to spread outside the barrier.

Before constructing a fire ring or pit one must determine how big the fire will be. A small fire is much easier to control and also saves fuel. If the fire pit is dug and walled properly, it can produce as much heat as a large one. The fire ring or pit needs to be prepared carefully. Choose a site that meets fire and location considerations.

Fire Ring

A fire ring can be made of rocks. The rocks used should be small in size; however they should still be able to contain a small fire. Place the rocks side by side in a circle to complete the ring. The ring will contain the fire. Water-logged rocks should not be used as the moisture contained inside the rocks will expand and cause the rocks to explode with tremendous force.

A-CR-CCP-107/PT-001, Royal Canadian Army Cadets Course Training Plan Corps Training Program Winter Adventure Training Manual (p. 3-20)

Figure 14-5-2 Fire Ring

Fire Pit

A fire can also be placed in a pit if no rocks are present. A pit is a dish-shaped hole with gently sloping sides, from six to twelve inches deep, depending on the width of the fire. This depression cradles the fire, grouping its coals toward the centre to help them burn longer and hotter. Be careful not to make the pit too deep, or the heat may not reach the person making the fire.

Brown, T., Jr. and Morgan, B., Tom Brown's Field Guide: Wilderness Survival, The Berkley Publishing Group. (p. 62)

Figure 14-5-3 Fire Pit

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. What do the colours of the CFFDRS indicate?

Q2. What factors should be considered when choosing a safe fire location?

Q3. How can a fire barrier be made ?

ANTICIPATED ANSWERS

A1. The colours of the CFFDRS indicate:

- Blue – Low;
- Green – Moderate;
- Yellow – High;
- Orange – Very High; and
- Red – Extreme.

A2. A fire location should be:

- high and dry,
- in an area that is sheltered away from windy areas to reduce flare ups;
- clear of over-hanging boughs and branches;
- away from all combustible materials; and
- four to six feet from the shelter entrance.

A3. A fire barrier can be made by building a fire ring or a fire pit.

Teaching Point 2 **Identify Characteristics of Fire**

Time: 10 min Method: Interactive Lecture

Discuss the fire triangle explaining the three elements and the effect the elements have on a fire if one is removed.

Fire may be the difference between living and dying. It will not only heat food for cooking but also keeps a person warm. For a body to produce heat it must burn calories. The warmth of a fire reduces the burden of the body to produce heat.

Fire has a great benefit to a cadet in the field. It can dry clothes, provide comfort and scare away dangerous animals. Its smoke also keeps away insects and pests.

THE FIRE TRIANGLE

Fire is a chemical reaction in which energy in the form of heat is produced. When forest fuels burn there is a chemical combination between the air (oxygen), fuel (wood) and heat that allows a fire to be produced. The sides of the fire triangle represent air, heat, and fuel. If any one of these sides is removed, the fire triangle collapses and the fire goes out.

For fire to take place there must be:

- air (oxygen);
- fuel to burn; and
- heat to start and continue the combustion process.

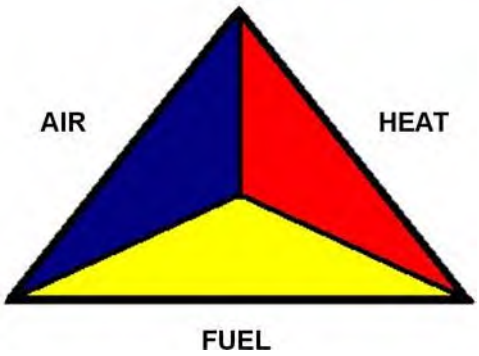

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Figure 14-5-4 Fire Triangle

TYPES OF FUEL

Fire requires fuel to burn. When preparing to light a fire it is important to find enough fuel to supply the fire for a determined period of time. When selecting fuel, there is one key rule – it must be dry.

The driest wood is found high up, away from water sources and on south-facing hillsides with open exposure to the sun. Avoid collecting fire-starting material from the ground, as it may be very damp—especially during wet

weather. Gather dead, dry vegetation from standing trees and plants. Be sure to collect enough fuel to sustain the fire for the duration it is required.

Tinder. Tinder is any kind of material that takes the minimum of heat to light. Good tinder needs only a spark to ignite. Tinder can be:

- bat droppings;
- birch bark;
- cotton fluff;
- dried fungi;
- dried grasses;
- dryer lint;
- fine wood shavings;
- pine needles;
- the insides of a bird's nest; or
- waxed paper.

Material used for tinder must be dry.

It is always a good idea to carry some tinder in a waterproof container when going into the field.

Kindling. Kindling is the next type of fuel required to raise the flames from the tinder so that larger and less combustible materials can be burned. The best kindling is composed of tiny twigs or slivers that range from the thickness of a pencil lead to that of a pencil itself. The softer woods are preferable because they flare up quickly.

In the case of wet weather or if experiencing difficulty establishing a fire, "feather sticks" can be made (see Figure 14-5-5). Feather sticks increase the chance of catching the fuel on fire because they are thinner.

Follow these steps to build a feather stick.

- Find a small dry stick.
- Slice partial shavings leaving the shaving attached to the stick.
- Shave using small thin cuts.

A-CR-CCP-107/PT-001 (p. 3-20)

Figure 14-5-5 Feather Sticks

Wood Fuel. Wood fuel is thicker and longer than kindling – from pencil to wrist size in diameter. This wood allows a cadet to build a stronger fire that eventually will be able to burn bulk firewood.

Bulk Firewood. Bulk firewood is too-big-to-break fuel that is added to a fire only after the fire is burning well. This wood does not necessarily have to be dry. By the time kindling and wood fuel are burning well, the fire should be hot enough to burn even green and damp wood.

TYPES OF FIRE

Making use of one of the constructed fires, explain to the cadets the type of fuel that is required. Break down the materials displaying tinder, kindling, wood fuel and bulk firewood.

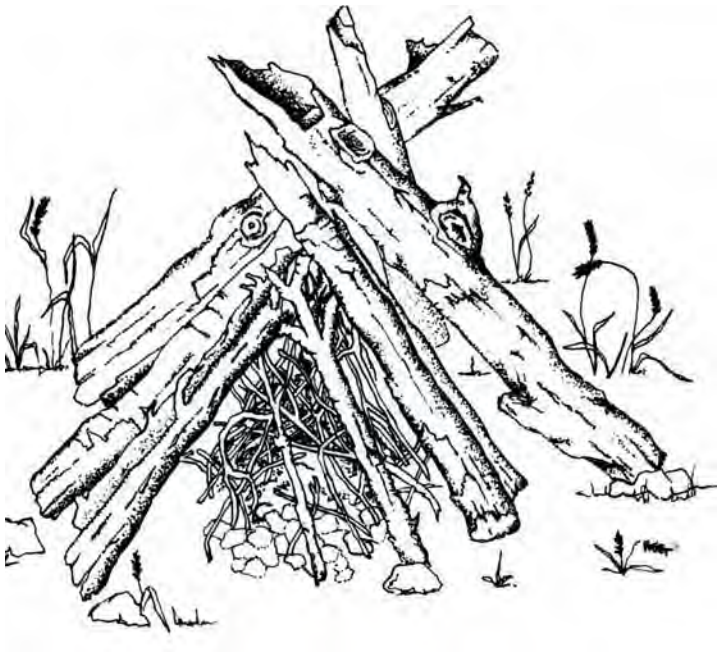
Point out what can be used as tinder. It is especially important to be able to locate dry tinder in a wet environment.

There are many different structural forms for a fire. When building a fire, construct it from the ground up, with room for air to enter. Build it loose with spaces between sticks and wood, allowing it to burn freely.

Tepee Fire. This is one of the most convenient configurations for a fire; it is made with kindling on its end forming a cone. This fire starts easily, burns efficiently, and throws out large quantities of heat and light. Furthermore, most of the smoke and sparks are channelled straight up. The slanting walls and resulting high flames help the fire hold up even in rain and snowstorms.

Follow these steps to build a tepee fire:

1. Line the ground or fire pit with dried bark or grass to prevent moisture from wicking into the fuel.
2. Make a small cone out of the kindling by propping the smallest sticks against one another, tepee fashion.
3. Leave enough room between the twigs for air to get through and leave an opening to apply the tinder inside.
4. Face the opening toward the wind to help drive the flames up through the fuel.
5. As the fire lights, add thicker sticks until the fire can maintain itself for short periods of time.



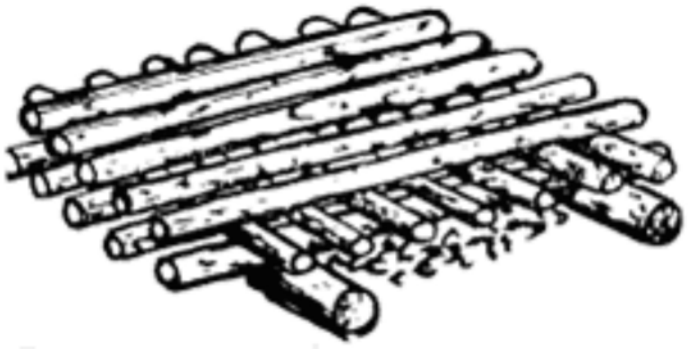
Brown, T., Jr. and Morgan, B., Tom Brown's Field Guide: Wilderness Survival, The Berkley Publishing Group (p. 65)

Figure 14-5-6 Tepee Fire

Crossbed Fire. This fire is good if a bed of hot coals for cooking is required. When lit, the whole structure will burn rapidly, leaving a bed of hot coals, excellent for roasting meat or fish.

Follow these steps to build a crossbed fire:

1. Lay two sticks about a foot apart.
2. Place tinder between the two sticks.
3. Place a layer of fuel at right angles to the original two sticks.
4. Leave space between the pieces.
5. Build up several layers in the same fashion, leaving air spaces.
6. Place each layer at right angles to the layer before it.
7. Light the tinder.



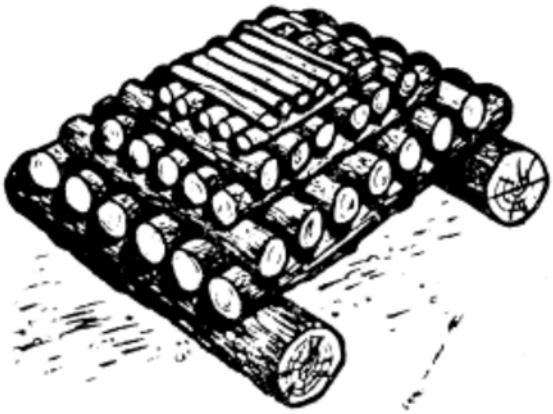
A-CR-CCP-107/PT-001 (p. 3-19)

Figure 14-5-7 Crossbed Fire

Crisscross Fire/pyramid. This fire burns from the top downward. It is useful when going to sleep for the night, as it requires little attention and burns slowly.

Follow these steps to build a crisscross/pyramid fire:

1. Place two small logs or branches parallel on the ground.
2. Place a solid layer of small logs across the parallel logs.
3. Add three or four more layers of logs or branches,
4. Each layer shall be smaller and laid at right angles to the layer below it.
5. Make a starter fire on top of the crisscross/pyramid fire.
6. As the fire burns it will ignite the logs below it.



A-CR-CCP-107/PT-001 (p. 3-20)

Figure 14-5-8 Crisscross/Pyramid Fire

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. What elements make up the fire triangle?

Q2. If air is removed from the fire triangle, what happens to the fire?

Q3. Name three types of fire.

ANTICIPATED ANSWERS

A1. The elements that make up the fire triangle are air, fuel and heat.

A2. The fire will go out.

A3. Three types of fires are the tepee, crossbed and crisscross/pyramid.

Teaching Point 3 **Demonstrate Preparing, Lighting, Maintaining and Extinguishing a Fire**

Time: 10 min Method: Demonstration

Conduct this TP as a demonstration of lighting a fire. Go through the steps of preparing, lighting, maintaining and extinguishing a fire.

PREPARING A FIRE

To prepare a fire, build it step by step. Start by laying out fuel in organized piles of kindling, tinder and larger burnable fuels by:

1. **Preparing Tinder.** Place a small handful of tinder in the selected location.
2. **Preparing Kindling.** Place kindling in a style that suits the type of fire that is being constructed (e.g. tepee style).
3. **Preparing Fuel.** Have wood fuel prepared to apply to the fire once it is established. Adding larger fuel may smother the fire if the fire is not ready to burn larger fuel.
4. **Ensuring Ventilation.** Allow for air to reach the kindling and tinder. Do not apply too much fuel at once as the fire may be starved of air prior to ignition. Air should naturally be able to flow, without additional assistance, to encourage growth of the fire.

LIGHTING A FIRE

To light a fire using a match, light the kindling and monitor the fire. Apply more kindling as required to maintain a burning fire.

MAINTAINING A FIRE

Maintaining a fire requires a constant source of fuel. Fuel that maintains a fire is usually of larger material considered to be bulk firewood. This fuel will not be consumed by the fire very quickly. It will continue to burn for long periods of time.

When maintaining a fire:

1. **Apply Fuel.** Once the fire has a strong base of hot coals, (coals are red hot) apply bulk fire wood.

Tawrell, P., Camping and Wilderness Survival, Leonard Paul Tawrell (p. 433)

Figure 14-5-9 Fire With Developed Coals

2. **Ensure Ventilation.** Applying bulk firewood may smother the fire. Place bulk firewood so air is able to circulate. Bulk firewood can be placed in any of the fire types (tepee, crossbed, or crisscross/pyramid) by laying the log with one end into the centre of the fire and the other end extending out to the edge of the fire. Continue this process around the fire. Leave spaces between the bulk firewood for air to circulate.

Tawrell, P., Camping and Wilderness Survival, Leonard Paul Tawrell (p. 433)

Figure 14-5-10 Star Fire

3. **Maintain Fire Size.** Fires can easily be over fuelled. To maintain the correct size, limit the amount of fuel used until desired size and warmth is achieved. If the fire is for cooking, hot coals and less fuel is sufficient.

EXTINGUISH A FIRE

As the fire burns, plan ahead to extinguish it. Stop feeding the fire long before (time enough to let the remaining fuel burn off) it must be extinguished. Collect and pile the remaining chunks of burning wood so they are consumed by the flames, leaving only ashes and coals to dispose of when the fire has finished burning.

Once the fire has burned itself down to white ash, douse it thoroughly with water. Pour water over the ashes, stirring them occasionally to ensure the coals are completely extinguished. Replace or fill the fire pit with wet earth or sand to ensure no flare ups will occur.

If this is a new campfire site, scatter the ashes and replace the sod or decomposing material from the forest floor, returning the site to its original condition.

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

Q1. What are the two types of fuel used to start a fire?

Q2. If it is hard to start a fire or the fuel is wet, what can you do to a stick to increase the chances of it catching fire?

Q3. How do you extinguish a fire?

ANTICIPATED ANSWERS

A1. Tinder and kindling.

A2. You can make a feather stick.

A3. Once the fire has burned itself down to white ash, douse it thoroughly with water. Pour water over the ashes, stirring them occasionally to ensure that they are completely extinguished. Replace or fill the fire pit with wet earth or sand to ensure no flare ups occur.

Teaching Point 4 **Prepare, Light, Maintain and Extinguish a Fire**

Time: 50 min Method: Practical Activity

ACTIVITY

OBJECTIVE

The objective of this activity is to allow cadets to practice preparing, lighting, maintaining and extinguishing a fire.

RESOURCES

Matches.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Divide cadets into groups of four.
2. Assign each group a type of fire to construct.
3. Fires shall be constructed and lit within 20 minutes.
4. Each fire must be maintained for 10 minutes.
5. All fires must be extinguished, ensuring no smouldering coals are present.
6. Ensure fire sites are cleaned up and returned to their original state within 20 minutes.

SAFETY

Supervisory staff shall have fire safety equipment available in case of an emergency.

CONFIRMATION OF TEACHING POINT 4

The cadets' participation in the activity in TP4 will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in the activity in TP4 will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Cadets, having learned to prepare, light, maintain and extinguish a fire can now construct the type of fire to meet their needs. Emergency situations present constantly changing conditions. The ability to construct a specific fire is essential to increasing the chances of survival.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

A2-040 A-CR-CCP-107/PT-001 Department of National Defence. (1978). *Royal Canadian Army Cadets Course Training Plan Adventure Training*. Ottawa, ON: Department of National Defence.

C0-111 (ISBN 978-0-9740820-2-8) Tawrell, P. (2006). *Camping and Wilderness Survival: The Ultimate Outdoors Book* (2nd ed.). Lebanon, NH: Leonard Paul Tawrell.

C2-004 (ISBN 1-896713-00-9) Tawrell, P. (1996). *Camping and Wilderness Survival: The Ultimate Outdoors Book*. Green Valley, ON: Paul Tawrell.

C2-042 (ISBN 0-7566-0946-1) Berger, K. (2005). *Backpacking & Hiking*. New York, NY: DK Publishing, Inc.

C2-068 (ISBN 0-425-10572-5) Brown, T., Jr. with Morgan, B. (1983). *Tom Brown's Field Guide To: Wilderness Survival*. New York, NY: The Berkley Publishing Group.

ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 6

EO M224.06 – IDENTIFY METHODS OF SIGNALLING

Total Time: 60 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4 of. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Prepare a ground-to-air message signal for cadets to see as a visual aid.

Permission will be obtained for a signal fire from the local authorities (e.g. local police, forestry service, and/or airport authority). The following information will be provided:

1. the organization;
2. a contact name;
3. a contact number;
4. the location including grid reference (GR);
5. the estimated time of lighting; and
6. the duration the fire is expected to be lit.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TP1 and TP2 to introduce and allow the cadets an opportunity to practice signalling methods.

A practical activity was chosen for TP3 as it is an interactive way to introduce cadets to methods of signalling. This activity contributes to the development of survival skills in a fun and challenging setting.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to identify methods of signalling.

IMPORTANCE

It is important for cadets to know how to signal for help so they can increase their chances of being located more quickly, if they become lost.

Teaching Point 1 **Discuss Signalling Devices**

Time: 10 min Method: Interactive Lecture

This TP focuses on signalling devices that can be used in the field. Ask the cadets if they know of anyone who was lost and was found through the use of a signalling device.

Discuss the way in which the individual signalled for help. Point out any key reasons why the individual was found because of the signal.

If there is no story provided by the cadets, a story has been provided below. Read the story and have the cadets brainstorm for a moment and ask them what they think Dave can use to signal for help.

Keep in mind the cadets have no idea what materials Dave has or what he brought with him. Assume he has everything and get the cadets to think about what can be used to signal search and rescuers.

Continue with the TP, describing the signals and how they can be employed.

Survival Story

It is a beautiful summer day and Dave decides to go for a hike. Before leaving his house he writes a note to his wife saying where he is going and that he expects to be back by suppertime (1700hrs).

Leaving his home and arriving at the base of his normal hiking trails he decides to take a new route that he has never travelled before. The hiking trails in this area are usually safe and easy. The trails are always marked and the route is easy to follow. As the day wears on, Dave finds he is running a little behind on his timings and decides to speed up his pace.

Cutting across some rough, rocky ground, Dave suddenly loses his footing, jams his foot between two rocks and falls over. Hearing a loud snap and feeling a sudden rush of pain spreading up from his ankle, Dave realizes he has broken his ankle.

After freeing himself and splinting his ankle, Dave knows he will not be able to walk out of the woods. Preparing for a night in the woods, Dave applies the S.T.O.P. principles and thinks about the five elements of survival. Dave finds a natural, tree hollow shelter suitable for a night's stay in the field. Dave knows his wife will send for help. However, he is not on his normal hiking routes.

Determining that he may have to signal for help, he begins to think about what options he has.

SIGNALLING

Signalling for help is essential for increasing the chances of being located quickly. Establishing contact with, or attracting the attention of search and rescuers should be the main objective after all vital survival needs have been addressed.

When preparing signals keep the following points in mind.

- Be sure to have signals ready and place them in open areas that are readily seen from the ground and the air.
- Prepare as many types of signals as possible.
- Protect signals and equipment from moisture and cold.
- Any unusual sign or colour contrast is visible from the air, even a trail in the snow.
- Care for all signalling equipment to prolong its use.

SIGNALLING DEVICES

Flares. Flares are small rockets that ascend to a high altitude of approximately 45-60 metres and burn for approximately 7-15 seconds. The flare emits a single Red Star. This bright light can be seen for many miles depending on the weather. When choosing a signal flare, be sure to try to deploy it from an elevated position where no obstructions exist overhead.

Mirrors. Mirrors can reflect sunlight beyond the horizon up to seven million candlepower. Hold the mirror in your hand with your arm outstretched. Sight along your arm to aim the mirror, flash at particular points along the horizon. Send three flashes.

Whistles. Whistles emit a loud piercing sound. They are designed to be heard above ambient noise, the roar of engines, breaking waves and gale force winds. Blowing a whistle three times in succession, signals anyone who hears this that someone requires help.

A series of three signals (whistles, flashes, etc.) in a row represents the universal distress call. It is similar to the S.O.S. morse code signal.

Radios and Cell Phones. These items can provide a direct link to help immediately. Location may hinder or completely restrict a signal. Move to higher ground that is close by and attempt an emergency call again. Communications dealing with distress, urgency, or safety have priority over other radio traffic. Identify who is calling, speak clearly and keep communications as brief as possible. Arrange a check in time and turn off the phone to save battery life in emergency situations.

Fire and Smoke. Fire and smoke can be used to attract the attention of search and rescuers. Three evenly spaced fires, 35 metres or 100 feet apart, arranged in a triangle or in a straight line, serve as an international distress signal. One signal fire will usually work. During the night, the flames should be as bright as possible and during the day, the fire should produce as much smoke as possible.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. What are three points you should keep in mind when preparing signals?

Q2. Name five signalling devices.

Q3. If you found yourself lost in the woods what could produce a very loud piercing sound to signal that you are in trouble?

ANTICIPATED ANSWERS

A1. Any of the following:

- Be sure to have signals ready and place them in open areas that are readily seen from the ground and the air.
- Prepare as many types of signals as possible.
- Protect signals and equipment from moisture and cold.
- Any unusual sign or colour contrast is visible from the air, even a trail in the snow.
- Care for all signalling equipment to prolong its use.

A2. Five signalling devices are:

- Flares.
- Mirrors.
- Whistles.
- Radios and cell phones.
- Fire and smoke.

A3. A whistle could produce a very loud piercing sound.

Teaching Point 2 **Discuss Ground-to-air Signals Employed to Communicate With Aircraft**

Time: 15 min Method: Interactive Lecture

Start this lesson by showing the cadets the previously prepared ground-to-air signal. While instructing this TP, refer to aspects of the prepared signal as a visual aid.

Orient the signal to take advantage of the sun and the casting of a shadow. Making use of shadows will greatly enhance the signal. Reinforce the importance of having a correctly oriented and developed signal.

Typically, when a person becomes lost a search will commence around the last known position. These parameters will expand when nothing is found along the intended route. Searchers will be looking for anything out of the ordinary and their eyes will be drawn to unnatural features of the ground. Make the site as conspicuous as possible by preparing ground-to-air signals.

SIGNAL DIMENSIONS

A signal should be as large as possible. To be the most effective, the signal should have lines no less than 1 m wide (3 feet) and 8 m long (26 feet). Care should be taken to ensure symbols are laid out exactly as depicted. From the air, symbols will appear close together as altitude increases. Ensure each symbol is at least 3 m apart (10 feet).

CONTRASTING SHADES OR COLOURS

Illustrating and defining a shadow created from a ground-to-air signal may be difficult.

Ensure that the signal is parallel to the sun's direction of travel (e.g. east to west) and be sure to make the signal large enough to produce a shadow.

A signal should stand out sharply against its background. This helps to make the signal appear larger. Everything must be done to disturb the natural look of the ground. This can be accomplished by:

- stamping down grass or turning it over to allow the signal to be easily seen from the air;
- burning a pattern in the grass;
- trampling out a signal in the snow, using only one path to and from the signal; and
- considering the shadow created by the sun and maximizing the shadow created by stamped foot markings or snow piles.

The signal should be located so it can be seen from all directions. Make sure the signal is located away from shadows and overhangs. A large, high, open area is preferable.

GROUND-TO-AIR SIGNALS

The following symbols are to be used to communicate with aircraft when an emergency exists. Symbols 1 to 5 are internationally accepted; 6 to 9 are for use in Canada only.

NO.	MESSAGE	CORE SYMBOL
1.	Require Assistance	V
2.	Require Medical Assistance	X
3.	No or Negative	N
4.	Yes or Affirmative	Y
5.	Proceeding In This Direction	↑
6.	All Is Well	LL
7.	Require Food and Water	F
8.	Require Fuel and Oil	L
9.	Need Repairs	W

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Figure 14-6-1 Ground-to-Air Signals

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. What should the dimensions of a ground-to-air signal be?

Q2. If you were asked to make the symbol V on the ground, what would it mean to an aircraft above?

Q3. How does one create a contrasting shade on the ground?

ANTICIPATED ANSWERS

A1. A ground-to-air signal should be 1 m wide by 8 m long.

A2. The symbol V means someone requires assistance.

A3. To create a contrasting shade on the ground:

- stamp down grass or turn it over to allow the signal to be easily seen from the air;

- burn a pattern in the grass;
- tramp out a signal in the snow, using only one path to and from the signal; and
- consider the shadow created by the sun and maximize the shadow created by stamped foot markings or snow piles.

Teaching Point 3 **Construct a Ground-to-air Signal**

Time: 25 min Method: Practical Activity

ACTIVITY

OBJECTIVE

The objective of this activity is to construct a ground-to-air signal capable of being seen from aircraft.

RESOURCES

Objects and debris from the surrounding environment.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

- Divide the cadets into groups of no more than four.
- Assign the groups one of the five ground-to-air signals to construct.
- Give the cadets 20 minutes to seek out materials and create their signal.
- Upon completion, inspect the signals and confirm they meet the dimensions.
- Disassemble all signals and return materials to original locations.

SAFETY

Establish boundaries for the cadets who are gathering materials.

CONFIRMATION OF TEACHING POINT 3

The cadets' participation in this activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in the activity in TP3 will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Signals provide a cadet in distress with the means to gain the attention of search and rescuers. Cadets who become lost can employ the actions to take when lost through completing the S.T.O.P. acronym and include in their plans a method of signalling for help.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

C2-016 (ISBN 0-517-88783-5) Curtis, R. (1998). *The Backpacker's Field Manual: A Comprehensive Guide to Mastering Backcountry Skills*. New York, NY: Three Rivers Press.

C2-044 Department of Transportation. (2007). *Ground-to-Air Signals*. Retrieved 9 February 2007, from http://www.tc.gc.ca/CivilAviation/publications/tp14371/SAS/4-0.htm.

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ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 7

EO C224.01 – COOK IN THE FIELD

Total Time: 60 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

From EO M224.05 (Prepare, Light, Maintain, and Extinguish a Fire), review:

- choosing a safe fire site;
- preparing a fire;
- lighting a fire;
- maintaining a fire; and
- extinguishing a fire.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TP1 to introduce cooking in the field and to present basic or background material.

A practical activity was chosen for TP2 as it is an interactive way to introduce cadets to cooking in the field. This activity contributes to the development of survival skills in a fun and challenging setting.

INTRODUCTION

REVIEW

The review for this lesson is from EO M224.05 (Prepare, Light, Maintain, and Extinguish a Fire).

QUESTIONS

Q1. What does a fire need in order to burn?

Q2. How is a fire lit?

Q3. How can a fire be extinguished?

ANTICIPATED ANSWERS

A1. In order to burn, a fire needs air (oxygen), fuel and heat.

A2. To light a fire using a match, light the kindling and monitor it.

A3. To extinguish a fire one can stop feeding it, cover it with wet earth or douse it thoroughly with water.

OBJECTIVES

By the end of this lesson the cadet shall be expected to cook in the field.

IMPORTANCE

It is important for cadets to know different ways to cook and prepare meals in the field. In a survival situation, it is extremely important to be familiar with different cooking options. Having the confidence to use these methods to cook food will help a cadet get nutrition and energy when they are needed.

Teaching Point 1 **Discuss Methods for Cooking in the Field**

Time: 15 min Method: Interactive Lecture

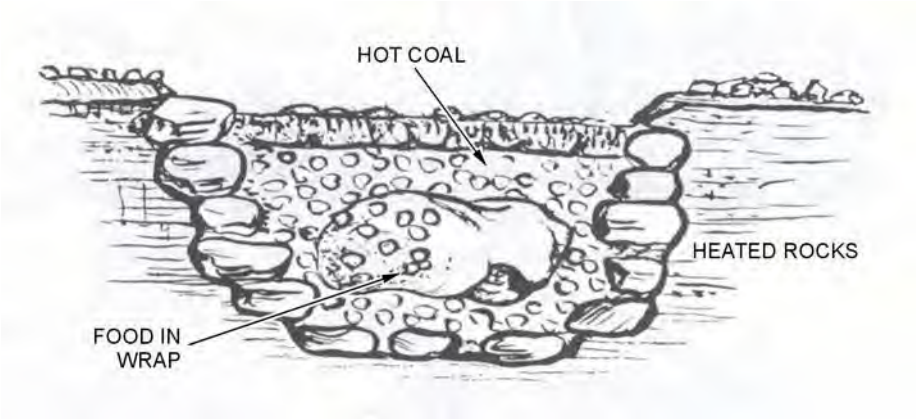
All of the methods listed require prior preparation of the food being cooked. This involves peeling/skinning, cleaning and wrapping. When cooking in the field, food must be properly prepared. Cadets will prepare a potato for baking in TP2. Preparing other foods (e.g. meat, such as rabbits) will be discussed in Silver Star.

Cooking in the field is an important skill for people who find themselves in a survival situation. Since the human body needs nutrients and energy, cooking is essential. There are many different ways to cook in the field.

BAKING IN A SHALLOW PIT LINED WITH ROCKS

The best way to bake in the field is in the ground. When food is buried, it will cook faster. To do this:

1. Dig a shallow pit in the ground.
2. Line the pit with rocks.
3. Burn a small fire to get a bed of coals.
4. Place a layer of wet grass on the embers when there are no more open flames and only hot, red embers remaining (if the grass is dry, soak in water).
5. Place the food (already prepared to be cooked) on top of the wet grass.
6. Use a stick to move around the hot coals to get them as close to the food as possible. Try to put some coals on top of the food.
7. Cover the food with the earth that was dug from the pit.



B-GA-217-001/PT-001, Down But Not Out (p.130)

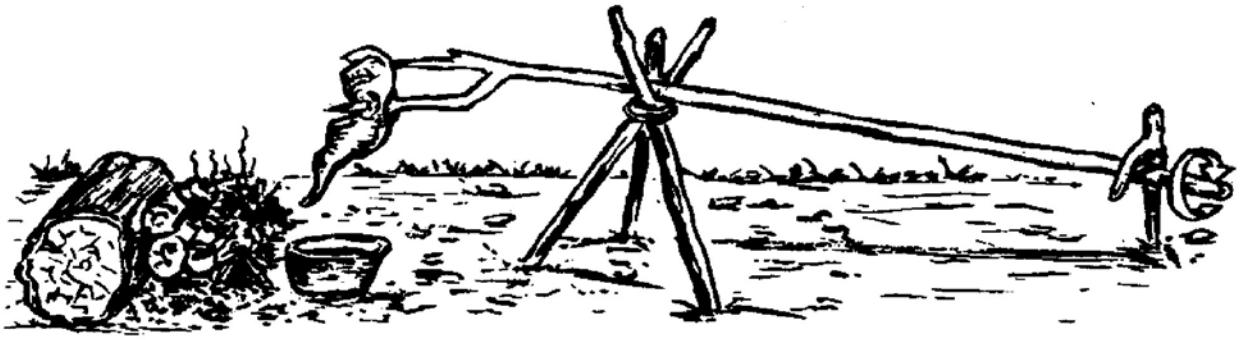
Figure 14-7-1 Baking in the Ground

When using this method, it is very difficult to check and see if the food is cooked. Cooking time will vary, depending on what is being cooked. Ensure food is completely cooked before consuming. Place it back in the ground and allow more time if unsure.

ROASTING WITH A STICK

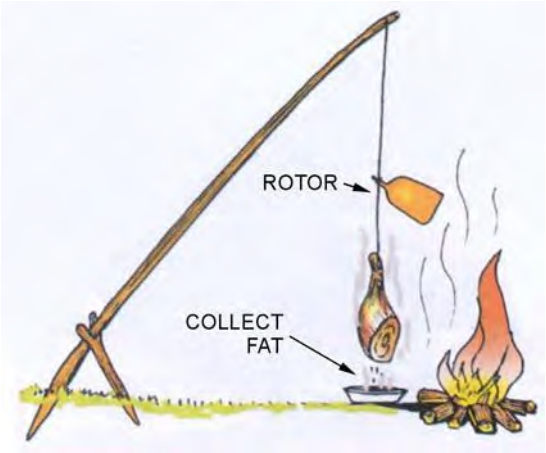
Roasting is an easy method that produces tasty results. Unfortunately, it also produces a lot of grease when cooking meat. To minimize waste, place a pot or container under the roasting food to catch grease. Place the object being cooked on the end of a stick, beside an open fire. The food should not be placed directly over the fire and direct contact with smoke and flame should be avoided as much as possible.

The food will need to be rotated or turned to ensure it is cooked throughout. If dangling the object, a rotor, made with plastic or heavy paper, can be attached (see Figure 14-7-3). The rotor will catch and turn in the wind, turning the food.



B-GA-217-001/PT-001 (p.129)

Figure 14-7-2 Roasting



Tawrell, P., Camping and Wilderness Survival, Leonard Paul Tawrell (p. 442)

Figure 14-7-3 Roasting With a Rotor

Tawrell, P., Camping and Wilderness Survival, Leonard Paul Tawrell (p. 448)

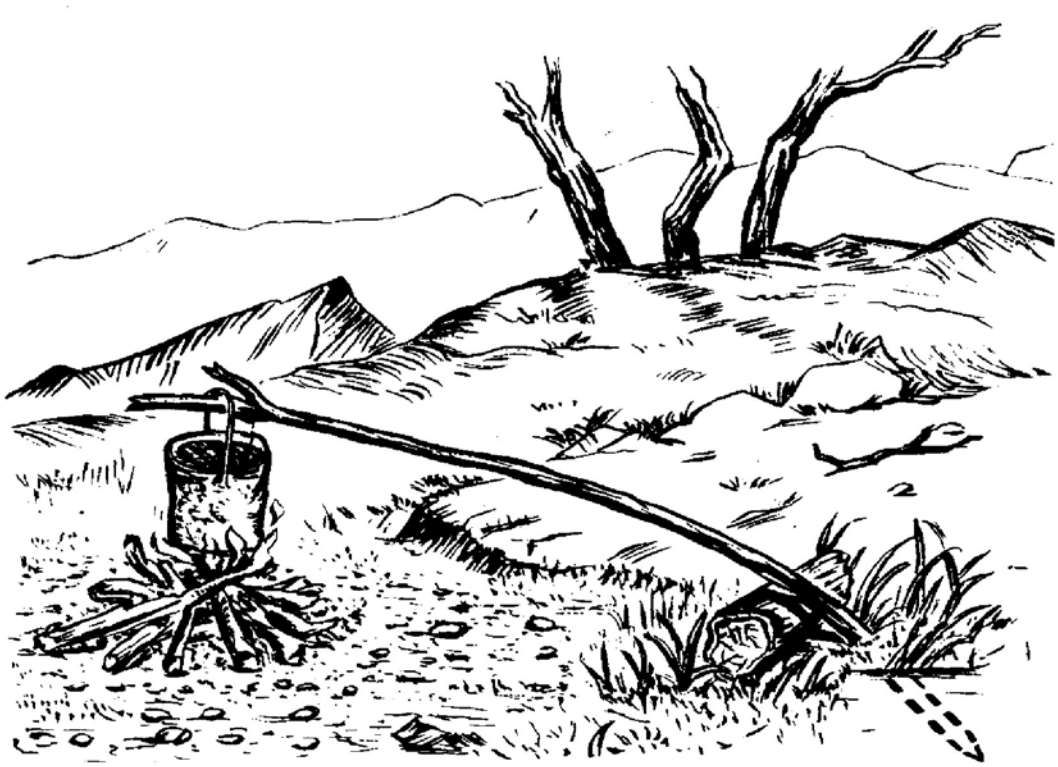
Figure 14-7-4 Roasting Fish

BOILING IN A POT

Boiling in a pot can be done over an open fire, the same as on a stove. When boiling in a pot, ensure the pot is sitting straight up on the fire. This can be done by using a grill, wedging it between two pieces of thick wood or placing rocks around to stabilize it. There are many ways to place a pot over a fire using wood (see Figures 14-7-5 to 14-7-8). It is important to ensure the pot is stable and does not have a risk of falling into the fire.

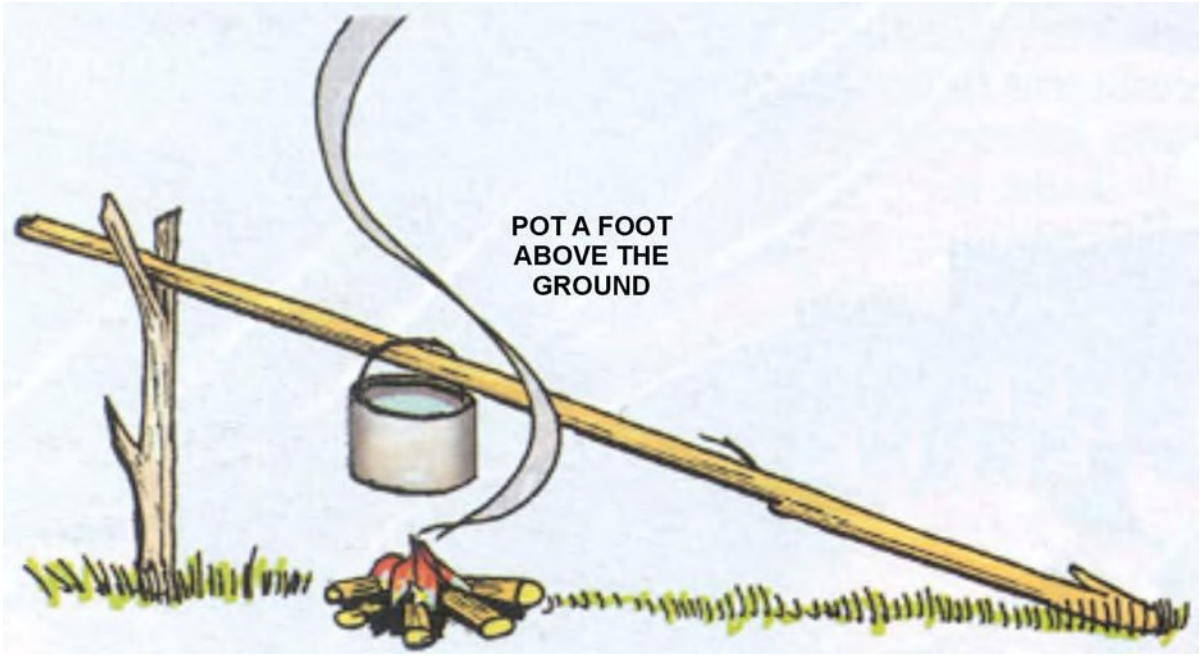
Seeing bubbles is an easy way to tell that water is boiling.

Boiling over an open fire will normally cause soot to form on the outside of the pot. A coating of soapy water on the outside of the pot will make cleaning much easier.



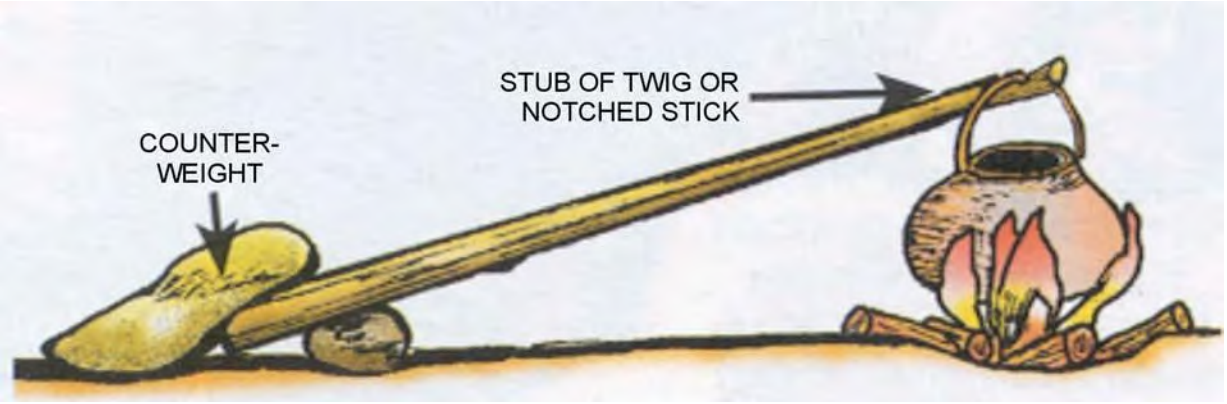
B-GA-217-000/PT-001 (p.128)

Figure 14-7-5 Boiling



Tawrell, P., Camping and Wilderness Survival, Leonard Paul Tawrell (p. 442)

Figure 14-7-6 Boiling



Tawrell, P., Camping and Wilderness Survival, Leonard Paul Tawrell (p. 442)

Figure 14-7-7 Boiling Using a Counterweight

Tawrell, P., Camping and Wilderness Survival, Leonard Paul Tawrell (p. 444)

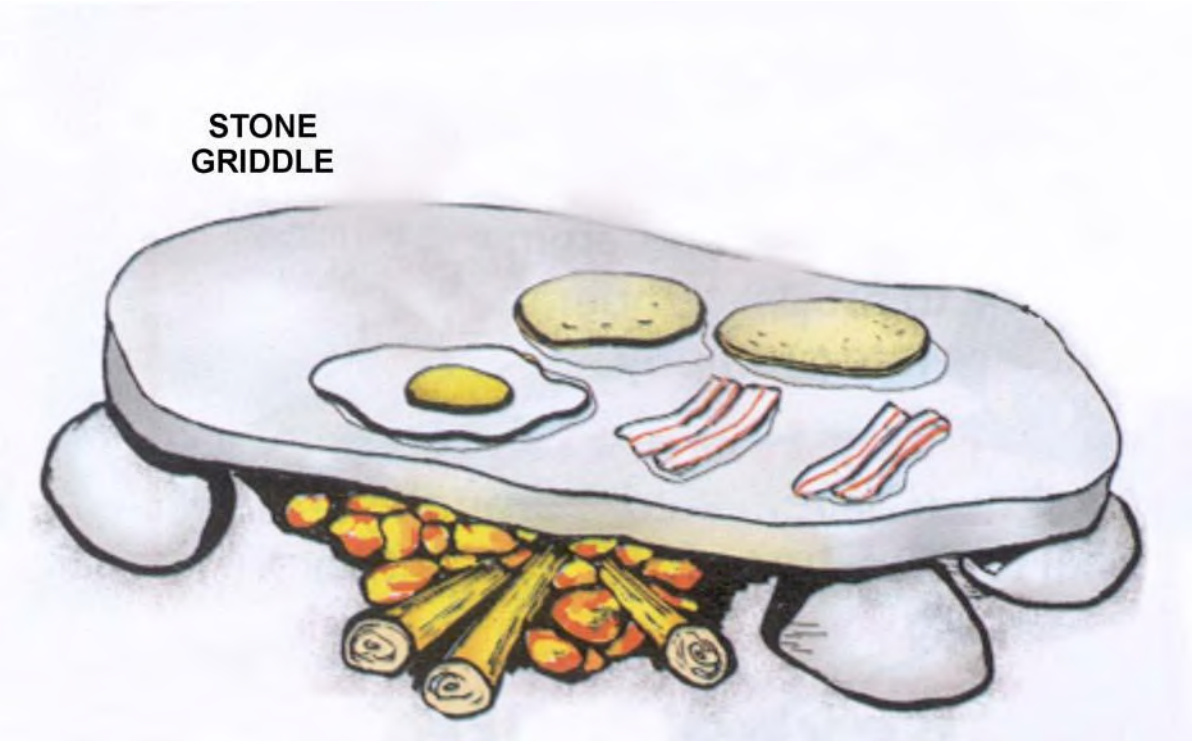
Figure 14-7-8 Boiling on an Open Flame With Wood

Tawrell, P., Camping and Wilderness Survival, Leonard Paul Tawrell (p. 442)

Figure 14-7-9 Boiling on an Open Flame With Rocks

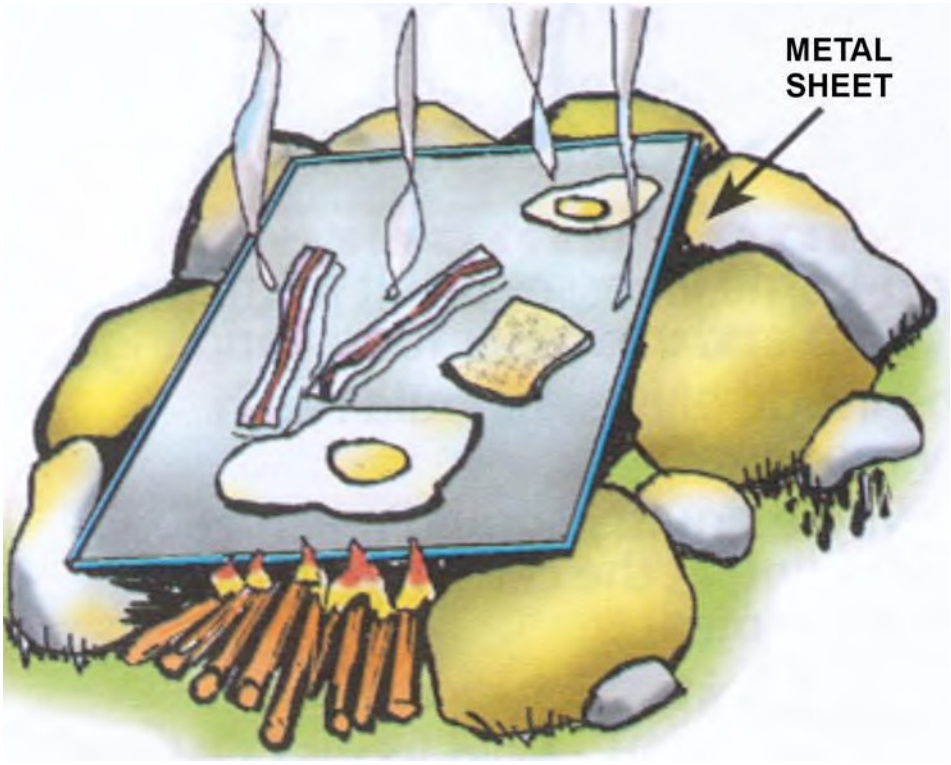
FRYING

Food can be easily fried on a rock or sheet of metal. A rock will hold a lot of heat for a very long time. When using this method to cook, food may easily stick if there is not a sufficient amount of grease.



Tawrell, P., Camping and Wilderness Survival, Leonard Paul Tawrell (p. 442)

Figure 14-7-10 Frying on a Flat Rock



Tawrell, P., Camping and Wilderness Survival, Leonard Paul Tawrell (p. 442)

Figure 14-7-11 Frying With a Metal Sheet

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. What are some methods for cooking in the field?

Q2. Why is it important to make sure that a pot is stable when boiling?

Q3. What is a disadvantage of frying?

ANTICIPATED ANSWERS

A1. Some methods for cooking in the field are baking, roasting, boiling and frying.

A2. It is important that the pot is stable so that it does not fall into the fire.

A3. A disadvantage of frying is that food will probably stick to the cooking surface if there is not enough grease.

Teaching Point 2 **Prepare and Bake a Potato in the Ground**

Time: 35 min Method: Practical Activity

Any food being cooked must be prepared first. Cadets will prepare a potato for baking in the ground.

Ensure that fires are small, since they must be extinguished before baking occurs.

Once the potatoes are placed in the ground, they will take approximately 30 minutes to cook. The cadets will have to come back after this lesson to retrieve their potato.

All fire pits should be marked to ensure no pit is forgotten.

ACTIVITY

OBJECTIVE

The objective of this activity is to prepare and bake a potato in the ground.

RESOURCES

- Water;
- Potato;
- Tin foil;
- Matches; and
- Shovels.

ACTIVITY LAYOUT

This activity must take place in a large open area, with enough room for each group of cadets to cook a potato in the ground.

ACTIVITY INSTRUCTIONS

1. To prepare the potatoes:
   a. Distribute one potato to each cadet.
   b. Have each cadet wash and scrub their potato with water.
   c. Have each cadet wrap their potato in tin foil. All potatoes should be completely wrapped at least three times in the tin foil.
2. Divide the cadets into groups of two to four.
3. Have each group dig a shallow pit in the ground.
4. Line the pit with rocks.
5. Burn a small tepee or crossbed fire to get a bed of coals.
6. Place a layer of wet grass on the embers when there are no more open flames and only hot, red embers remaining (if the grass is dry, use water).
7. Place the wrapped potatoes on top of the wet grass.
8. Use a stick to move around the hot coals to get them as close to the potato as possible, trying to put some coals on top of the potato.
9. Cover the potato with the earth that was dug from the pit.

Some cadets may wish to peel their potato prior to preparing it. A small pocket knife can do this.

If shovels are limited, encourage the cadets to find creative ways to dig the hole (e.g. with hollowed wood or with a spoon).

Cadets may wish to have salt, butter, sour cream, etc. with their potato.

Potatoes will take approximately 30 minutes to cook. Enjoy!

SAFETY

- Supervisory staff shall have fire safety equipment available in case of emergency.
- Potatoes will be hot, use extreme caution.

CONFIRMATION OF TEACHING POINT 2

The cadets' participation in the activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in baking a potato in the ground will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Knowing how to cook in the field is a great skill to have when lost. Knowing the many different ways to cook in the field could mean the difference in a person making it through a survival situation. Being able to use different methods of cooking in the field is also a fun way to cook food when on a weekend bivouac FTX.

INSTRUCTOR NOTES/REMARKS

The construction of fire pits requires additional supervision and the availability of fire safety equipment. Fire pits are to be marked with flags and must be supervised while baking is in progress.

REFERENCES

A2-046 B-GA-217-001/PT-001 *Down But Not Out*. (ND). Ottawa, ON: Department of National Defence.

C0-111 (ISBN 0-9740820-2-3) Tawrell, P. (2006). *Camping and Wilderness Survival: The Ultimate Outdoors Book* (2nd ed.). Lebanon, NH: Leonard Paul Tawrell.

ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 8

EO C224.02 – PREPARE A SIGNAL FIRE

Total Time:	60 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/PG-001, Chapter 4. Specific uses for said resources are identified throughout the Instructional Guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Prior to conducting this lesson, prepare the following:

- a three fire triangle;
- a torch tree; and
- a luminous cone fire.

Instructors will only demonstrate lighting the first of the prepared signal fires.

Additional supervision is required during the lighting of the signal fires. Fire safety equipment shall also be present.

The fire index is to be checked and appropriate authorities (e.g. local police, forestry service, and/or airport authority) shall be notified of the lighting of the signal fires. Authorities will be provided with the following information:

- corps contact name;
- contact number;
- location including grid reference;
- estimated time of lighting; and
- the duration the fire is expected to be lit.

Some localities may require the issue of special permission to conduct open/signal fires. Be sure permission is granted by the appropriate authorities listed above.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TP1 and TP2 to introduce the types of signal fires and to identify locations to prepare signal fires.

Demonstration was chosen for TP3 as it allows the instructor to explain or demonstrate preparing a signal fire.

A practical activity was chosen for TP4 as it is an interactive way to allow cadets to prepare a signal fire and witness the lighting of the signal fire in a safe and controlled environment.

INTRODUCTION

REVIEW

The review for this lesson will be from EO M224.05 (Prepare, Light, Maintain, and Extinguish a Fire), to include:

Selecting and Preparing Kinder. Tinder is any kind of material that a minimum amount of heat will ignite. Good tinder is dry and needs only a spark to set it ablaze. Birch bark, dry grass, fine wood shavings, bird down, waxed paper and cotton fluff from clothing all make good tinder. It is a good idea to carry tinder in a waterproof container.

Selecting and Preparing Kindling. Kindling is the wood used to raise flames from the tinder so larger, less combustible materials can be burned. The best kindling consists of small, dry twigs and small pieces of softwood. Kindling should not be collected straight from the earth because it is usually damp. It should be gathered from standing deadwood.

Selecting and Preparing Fuel. Fuel is anything that will burn in the fire. Dry wood from standing trees should be used to get fires going. Once the fire is established, greener and damp wood may be used. Hardwoods including hickory, beech, maple and oak burn well, give off heat and last as long as hot coals. The fire can be maintained for a long period of time using hardwoods.

Softwoods burn very quickly and give off sparks and can be used when lighting the fire. Softwoods include cedar, alder, hemlock, spruce, pine, chestnut and willow. After the fire is burning steadily, fuel that is three to four times the size of the kindling can be added.

OBJECTIVES

By the end of this lesson the cadets shall be expected to prepare and light a signal fire.

IMPORTANCE

It is important for cadets to be able to signal search and rescue services should they become lost during an expedition. One method of signalling, which can identify a cadet’s location by air or ground searchers, is the use of signal fires. Signal fires represent an important survival skill that may one day save a cadet’s life.

Teaching Point 1 **Determine Types of Emergency Signal Fires**

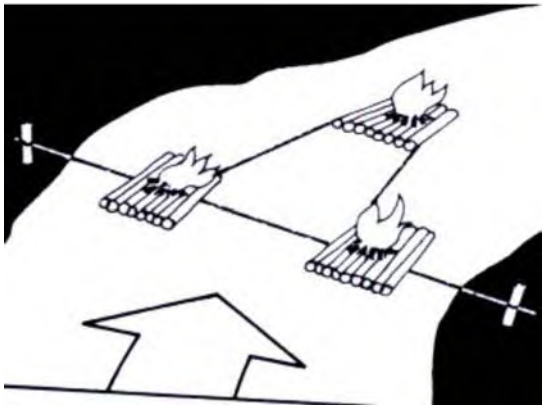
Time: 5 min Method: Interactive Lecture

As each signal is discussed, show cadets an example of each. Make sure cadets fully understand how to ignite each fire.

EMERGENCY SIGNAL FIRES

Three Fire Triangle Pattern

Three fires is the internationally recognized distress signal. Ideally, they should be placed in a triangle at equal distances apart, an arrangement which also makes them easier to feed with fuel. If this is not possible, any grouping will do, provided the fires are clearly separated. However, if fuel is scarce, or if one is too badly injured to maintain several fires, use only your campfire.



Wiseman, J., The SAS Survival Handbook, HarperCollins Publishers (p. 505)

Figure 14-8-1 Three Fire Triangle Pattern

A Torch Tree

Small isolated trees make excellent fire signals. Build a fire between the boughs by placing dry wood in the lower branches and ignite it so the flames flare up and ignite the foliage. Before the primary tree is consumed, cut and add more small green trees to the fire to produce more smoke. If a tree is dead, start a fire at its base. It will burn for a long time, leaving you free to attend to other signals.

"Signalling Techniques", by Wilderness Survival. Copyright 2007 by Jalic Inc. Retrieved 12 March 2007, from http://www.wilderness-survival.net/chpt19.php

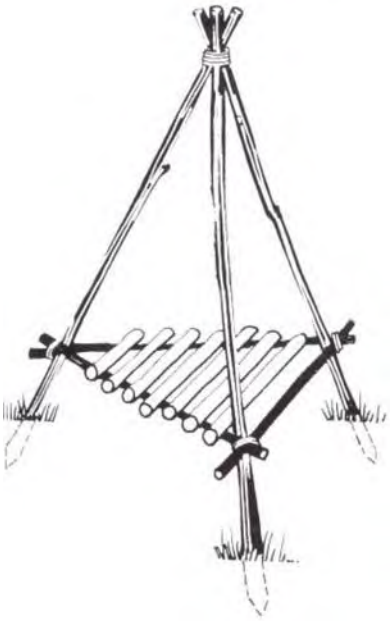
Figure 14-8-2 A Torch Tree

Always select an isolated tree to ignite to avoid starting a forest fire.

Luminous Cone Fire

On a clear and open site, make a tripod with a platform to support a fire. The platform keeps the tinder off damp ground and elevates the fire allowing it to ignite the boughs. Additional fire wood can be stored beneath it. If available, cover the cone with brightly coloured material when the fire is not lit. This will not only keep the fire dry and ready to burn, but the material itself will be noticeable and may attract attention. Remove the brightly coloured material when lighting the fire.

Keep these tripods well maintained, ensuring that wood is dry enough to light at a moment's notice. These fires are not expected to last very long as the tripod is made of wood and wood burns! Be sure to light the signal fire when someone will see it (e.g. when one hears a plane).



Wiseman, J., The SAS Survival Handbook, HarperCollins Publishers (p. 506)

Figure 14-8-3 A Luminous Cone Fire

Atlin Community Network Retrieved 12 March 2007, from http://www.atlin.net/Rangers.htm

Figure 14-8-4 Cone Fire

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. Name three types of emergency signal fires.

Q2. Why is it important to make sure that a pot is stable when boiling?

Q3. What is an internationally recognized distress signal?

ANTICIPATED ANSWERS

A1. They are the three fire triangle pattern, the torch tree, and the luminous cone fire.

A2. Always select an isolated tree so that you do not start a forest fire and endanger yourself and others.

A3. An internationally recognized distress signal is three fires.

Teaching Point 2 **Identify a Location to be Seen From the Air**

Time: 5 min Method: Interactive Lecture

BEST LOCATIONS FOR A SIGNAL FIRE TO BE SEEN FROM THE AIR

Elevated Ground. Choose the highest points of terrain for lighting signals.

Highly Visible. Find a natural clearing or the edge of a stream where one can build fires that foliage will not obscure the fire from overhead.

Fuel Source. Construct fires in an area where there are readily available fuel sources for the signal fire.

Examples of fuel sources include:

- dry, standing wood, and dry, dead branches;
- dry inside (heart) of fallen tree trunks and branches;
- green wood that is finely split;
- dry grasses twisted into bunches;
- peat dry enough to burn;
- dried animal dung;
- animal fats;
- coal, oil shale, or oil laying on the surface; and
- rubber, plastic or heavy oil to produce thick black smoke.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. What is the best terrain for the location of a signal fire?

Q2. What is a highly visible location?

Q3. What are some examples of fuel sources?

ANTICIPATED ANSWERS

A1. The highest point of terrain is the best location.

A2. It is a natural clearing or edge of a stream.

A3. Some examples of fuel sources are:

- dry, standing wood, and dry, dead branches;
- dry inside (heart) of fallen tree trunks and branches;
- green wood that is finely split;
- dry grasses twisted into bunches;
- peat dry enough to burn; dried animal dung;
- coal, oil shale, or oil laying on the surface; and
- rubber, plastic or heavy oil to produce thick black smoke.

Teaching Point 3 **Prepare a Signal Fire**

Time: 20 min Method: Demonstration

COMBUSTIBLE MATERIALS

Examples of combustible materials include birch bark, dry grass, fine wood shavings, bird down, waxed paper and cotton fluff from clothing.

The luminous cone fire that has been previously constructed can act as an example for demonstration purposes.

CONSTRUCTING A LUMINIOUS CONE FIRE

To construct a luminous cone fire:

1. Locate three 2 m (about 6 feet) sticks about the thickness of an adult's wrist or thicker.
2. Stand sticks on end forming a tepee style structure. Sticks can be driven into the ground to make the structure secure.
3. Sticks should meet at a point leaving approximately 30 cm (1 foot) from the end. This will provide enough room to make a cone of boughs on top of the structure.
4. Lash the tripod together where all sticks meet.
5. Construct a platform approximately 45 cm to 60 cm below the point where the sticks meet.
6. The platform should be made of sticks that are wrist thick so when the fire is lit it will not burn rapidly through.
7. Place kindling and tinder on the platform that will easily light, producing a burst of fire.
8. Cover the top of the tripod with green boughs making a cone shape. The heat from the fire should travel directly into the cone.
9. When lit, tremendous amounts of smoke should be produced.

MAXIMIZING SIGNAL FIRE SMOKE

Smoke is a form of visual communication. Creating large amounts of smoke that are dark and can be seen over long distances is very simple. By lighting a fire and adding any of the following fuels, dark smoke will be created.

Smoke-creating fuels:

- leaves;
- green boughs;
- wet/damp wood; and
- rubber.

Maintaining Smoke. To maintain smoke, one must constantly cover the fire with fuel that causes smoke. Be cautious not to smother the fire. If green boughs are available, pile many on a fire and the smoke produced will be thick and dense. Boughs burn quickly. Be sure to have many on hand to maintain the smoke level.

Smoke can also be produced by covering the fire for a very short period of time. Covering the fire with a blanket and raising it quickly will produce a puff of smoke.

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

Q1. What holds the tinder and kindling in the centre of the tripod?

Q2. What do you use to keep the cone dry?

Q3. What prevents the tripod from tipping?

ANTICIPATED ANSWERS

A1. The platform holds the tinder and kindling in the centre of the tripod.

A2. Green boughs are used to keep the cone dry.

A3. Ensure pole ends are driven into the ground to prevent tipping.

Teaching Point 4 **Construct and Light a Luminous Cone Signal Fire as a Member of a Group**

Time: 20 min Method: Practical Activity

ACTIVITY

OBJECTIVE

The objective of this activity is to have cadets build a luminous cone fire.

RESOURCES

- String;
- Wood;
- Boughs;
- Tinder; and
- Kindling.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Divide cadets into groups of no more than nine.
2. Have cadets gather tinder, kindling and sticks.

3. Have the cadets construct a cone fire by:

   a. making a tripod to support a fire;

   b. using the string to lash the top of the tripod together and the side supports together;

   c. ensuring stick (pole) ends are driven into the ground to prevent tipping;

   d. making a platform to hold the tinder, kindling and fuel;

   e. placing tinder and kindling in the centre of the platform;

   f. ensuring tinder and kindling are placed together in a fashion that will ignite the cone;

   g. ensuring there is sufficient ventilation allowing oxygen to feed the fire when lit (a fire will suffocate if there is too much fuel);

   h. covering with green boughs (if available) to keep the cone dry; and

   i. ensuring there is a heat and smoke outlet at the top of the cone.

Ensure that all the cadets in the group participate in the activity.

If there are more than two groups, limit the number of signal fires to be lit. The burning of additional resources will waste materials and harm the environment.

Continually inspect the construction of each signal fire and periodically ask the cadets the questions in the confirmation of TP3 to ensure they are correctly assembling the signal fire.

SAFETY

Cadets will be supervised during the construction of the luminous cone fire.

END OF LESSON CONFIRMATION

The cadets' construction of a luminous cone fire in TP4 will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

When lost, the cadet will apply the S.T.O.P. principles. Planning will include construction of a signal fire. Knowing how to construct a signal fire in a survival situation will help attract help to the survival location. Safety is a key concern when dealing with fire. Principles of fire safety must be applied before lighting a fire.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

C2-008 (ISBN 0-00-653140-7) Wiseman, J. (1999). *The SAS Survival Handbook*. Hammersmith, London: HarperCollins Publishers.

C2-016 (ISBN 0-517-88783-5) Curtis, R. (1998). *The Backpacker's Field Manual: A Comprehensive Guide to Mastering Backcountry Skills*. New York, NY: Three Rivers Press.

C2-042 (ISBN 0-7566-0946-1) Berger, K. (2005). *Backpacking & Hiking*. New York, NY: DK Publishing, Inc.

C3-118 Wilderness Survival. (2007). *Signalling Techniques*. Retrieved 12 March 2007, from http://www.wilderness-survival.net/chpt19.php.

CADENCE ARTICLE

Cadence · Issue 4 · Winter · 2001

Forum

New ideas, best practices and lessons learned

Sgt Stephanie Leger learned more than she bargained for on her survival instructor's course.

LOST AND FOUND

By Capt Jon MacDonald

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Sgt Stephanie Leger learned a lot more than she expected on her six-week survival instructor's course at the air cadet summer training centre in Greenwood, NS, this past summer. So did the cadet movement.

The fourth-year air cadet from 101 Royal Canadian Air Cadet Squadron in Moncton, NB was lost for 23 hours on her solo exercise in Cloud Lake, NS. But her story had a happy ending. And lessons were learned.

On the day of her solo exercise, Cadet Leger had not returned to her campsite by the end of the day. After searching for a few hours, staff notified the authorities and later, her parents. It was a call that any parent would dread. The Leger's 16-year-old daughter had been missing for 14 hours.

Cadet Leger's mother, Bernice, immediately flew to Greenwood. The training centre had organized a van and driver, accommodations, and a padre. Mrs. Leger was briefed on the situation and, at her request, was brought to Cloud Lake where the search was in progress. She was impressed to see some 200 people involved with the search efforts including personnel from the training centre, the RCMP, 14 Wing Greenwood, the Emergency Measures Organization and ground search and rescue teams from across the province. There were helicopters from 14 Wing and the Department of Natural Resources, as well as several tracking dogs.

It was late afternoon when Cadet Leger was found in good spirits and physical condition. She told the searchers that she had strayed from her site and was unable to relocate it, partly because it was getting dark. When she realized she was lost, she stayed where she was until she was found. Following a happy and tearful reunion with her mother, waiting paramedics checked her medical status, verified later at the local hospital.

The incident resulted in some valuable lessons. Cadet Leger said afterwards that she had seen the helicopters; however, she felt they could not see her because she was dressed in combat clothing. Little consideration had been given to the fact that combat clothing is designed to keep someone hidden in the bush. Given that

Cadet Leger embraces her mother after her ordeal.

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combat clothing is practical for the course, Sgt Leger suggested that cadets carry something reflective or brightly coloured for potential emergency situations.

Searchers found Cadet Leger because she used the safety whistle she was given. However, whistles with a much greater range are available and are now being considered.

As well, the communication procedures and equipment at Cloud Lake were not adequate to handle the extensive search requirements. This is also being reviewed.

Some of the best lessons come from Sgt Leger herself. She has experienced what few people will, and we can learn from what she tells us. She says, "When you realize you are lost the first thing is to stop and sit, observe your surroundings and plan anything you will need such as shelter, fire, food and so on. This is exactly what I did. The hardest part of the ordeal was not to let fear conquer my mind, especially at night. A trick to staying calm at night is to sleep. You have to keep saying to yourself that someone will eventually find you, maybe not today or tomorrow but eventually."

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She believes that when you're lost in the bush and alone with your mind, you have to use it to your advantage. "Your mind is a very powerful thing. If you think of all the horrible things that could happen, you'll get nothing accomplished. If you're hungry, convince yourself that you're not hungry! Make yourself laugh! Talk to rocks, trees...anything. I was lucky enough to have a 'pet' squirrel! I told him that he could be my buddy for now but in a few days, if I wasn't found, he'd be my lunch. While doing this, you almost forget you are lost. Even if it is for only a second, it really helps a lot."

The incident was also proof that our training works. Maj Ken Mayo, the chief training officer for Cloud Lake says, "Cadet Leger acted calmly and used her training towards staying safe for that night. She stayed calm throughout and kept to the general area where she was when she realized she was lost. The training that we give our cadets is effective and useful in real world situations."

Sgt Leger agrees. "The outcome could have been worse, but it wasn't — thanks to the training I received prior to this exercise. I'd highly recommend this course to any cadet."

Sgt Leger and her parents are thankful to those who helped in the search. They believe that "an exemplary team effort was the key to the happy ending." The cadet adds, "No-one knows how seeing them felt when they found me!"

Cadet Leger stayed to finish her course. Her parents agreed with her choice. Two days later, they sent her younger brother to the three-week physical education and recreation training course. As Mrs. Leger put it, "everyone got back on the horse."

– Capt MacDonald is the regional public affairs officer, Atlantic

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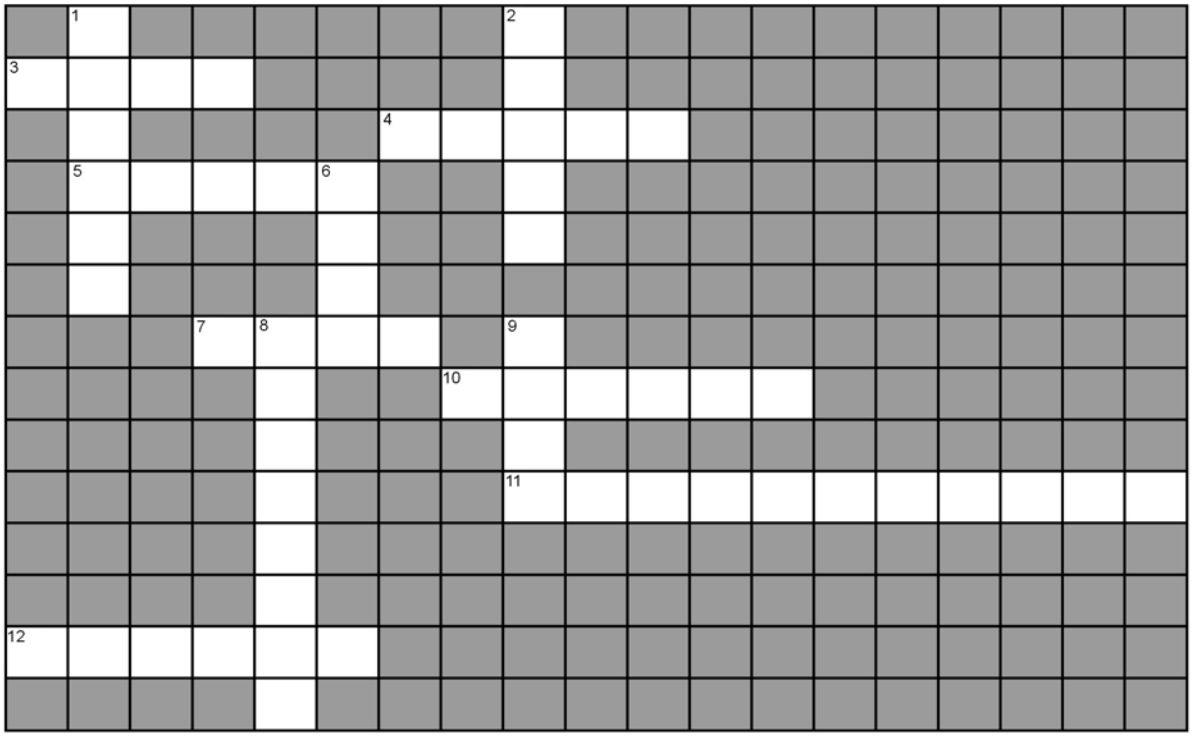
ENEMIES OF SURVIVAL PUZZLE



ACROSS

3. Nature's way of letting the body know that something's wrong.
4. After about ____ days, the stomach will shrink.
5. ____ allows someone to escape from a difficult situation.
7. Singing and talking are great ways to keep the ____ occupied.
10. When cold, keep the body ____.
11. A way to postpone pain.
12. ____ is the hidden enemy of survival.

DOWN

1. Lack of water can lead to dehydration, headaches and ____.
2. When ____, try to find something to stay occupied.
6. Working on a ____ allows one to be constructive while staying busy.
8. Thirst and hunger can ____ the chances of weakening to the effects of cold, pain and fear.
9. The body slows down it is ____.

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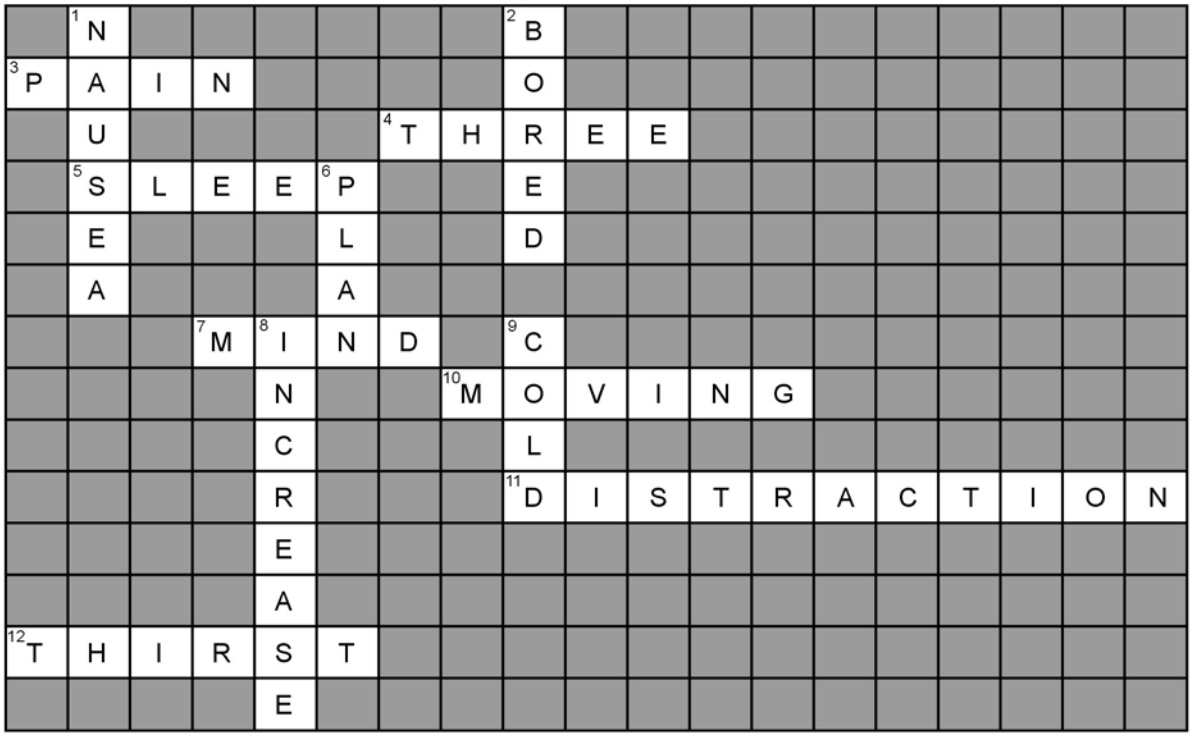
ENEMIES OF SURVIVAL PUZZLE – ANSWER KEY



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