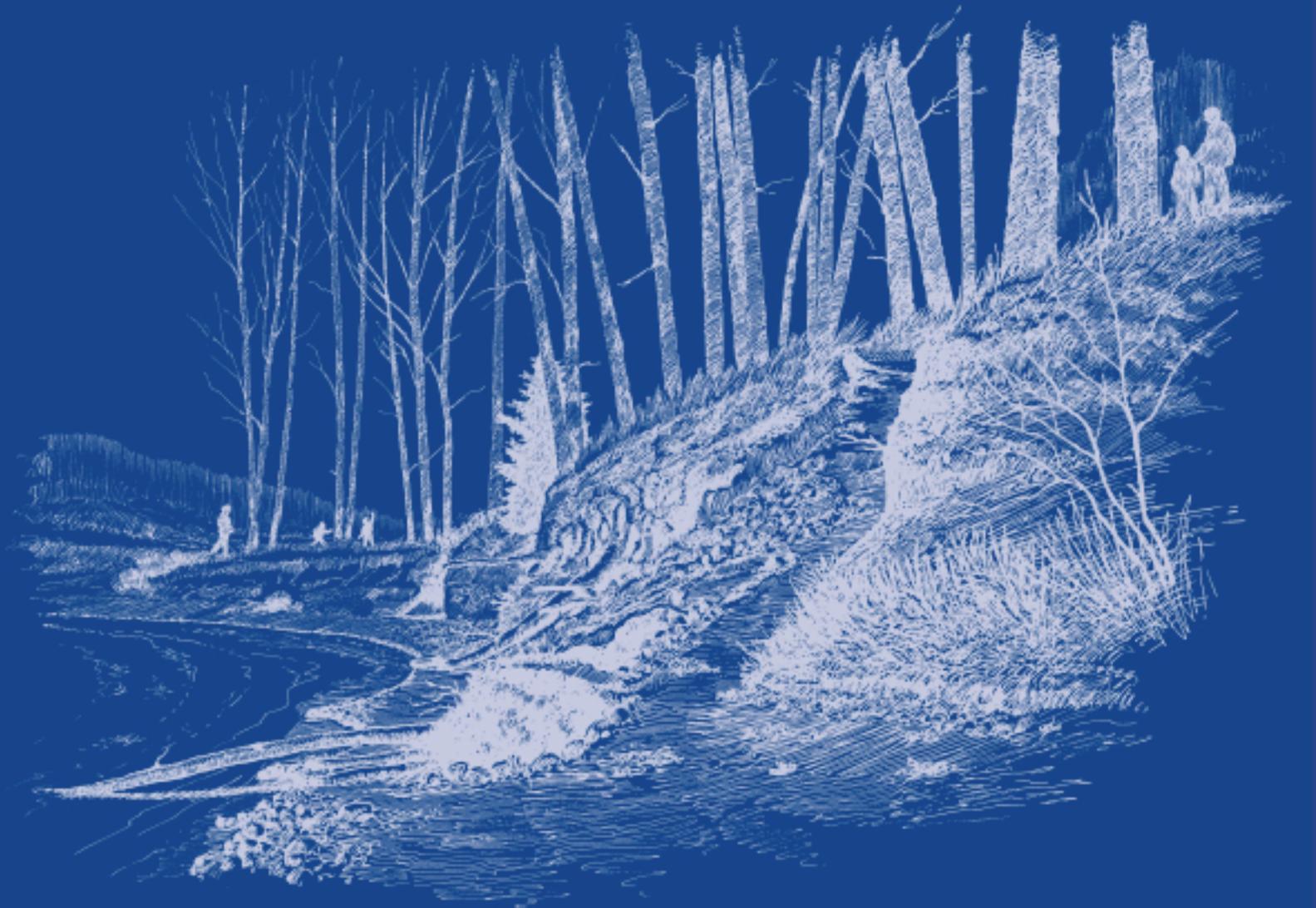


PARKS AND PROTECTED AREAS

Wilderness ... And You



This publication is part of a series of field study programs produced by the Environmental Education Program of Parks and Protected Areas in Kananaskis Country and Fish Creek Provincial Park. These publications have been written to address the goals of Alberta Community Development and increase students' environmental awareness, understanding, interaction, and responsibility for the natural world in which they live.

The publications are developed in a close working relationship with teachers, community educators and program writers. Programs focus on the areas of environmental education, science, social studies, and language arts. They are also developed to emphasize elements of environmental literacy, lifestyle, and citizenship.

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Appendix:

Map of Kananaskis Country for Simulation Game
Master Copy of Student Booklet

1.0 OVERVIEW

1.1 AT A GLANCE

TOPIC

Wilderness

PROGRAM LEVEL

Grades 6-12/ Ages 11-18

TIME REQUIRED

1.5 - 3.0 hours depending upon the length of the hike

STAFF REQUIRED

1 leader plus adult assistants
Suggested adult: student ratio of 1 to 5.

BEST SEASON

Spring, summer or fall, but can be modified for winter as well

**SUGGESTED
LOCATIONS**

Can be taught in any wildlands area which has access to a short, steep climb to a viewpoint. Examples include:

Kananaskis Central

- Ribbon Creek Coal Mine site/Mount Allan Trail

Kananaskis West (Peter Lougheed Provincial Park)

- Mount Everest Expedition Trail
- Mount Indefatigable Trail

Kananaskis East (Elbow District)

- Fullerton Loop
- Nihahi Ridge



1.2 PROGRAM SUMMARY

Education **in** the environment is critical to the study **of** the environment. The program *Wilderness and You* encourages students to understand their environment and the implications of their affect on the environment by looking at it in its natural state - a state which is often called **wilderness**. This two to three hour program provides a first hand look at that natural environment, man's relationship to the wilderness, and the limitations that both man and the wilderness have.

The program is divided into 5 sections as follows:

1. Introduction to Wilderness - Students seek to arrive at a definition of what wilderness is.
2. Awareness - Students take part in activities to enhance their awareness of wilderness and the quality of their interactions with it.
3. Knowledge - Students learn more about wilderness, their own limitations, and how to be prepared for a wilderness experience.
4. Connections and Values - Students have the opportunity to connect wilderness to their lives and explore the values that they place on wilderness areas.
5. Stewardship - Students focus on the concept of stewardship and develop their own conservation actions.

Wilderness and You has been designed as a guide for your field study experience. To ensure program success, read over the materials at least two weeks before your trip. This will allow you time to add your own activities or variations which you can include in the Teacher's Notes section of the Wilderness *and You* text.

1.3 PROGRAM OBJECTIVES

NOTE TO TEACHER: All of the following objectives need not be met. Teachers may select certain objectives which can be emphasized during the program.

- Students will explore the value of the natural environment by participating in a field study.
- Students will create their own definition of what the concept of **wilderness** means to them.
- Students will observe different levels of natural processes occurring in the environment by participating in awareness exercises.
- Students will explore the limitations that people are faced with in the wilderness by completing activities involving decision-making skills.
- Students will explore their own connections or relationships with a natural environment setting.
- Students will discuss and analyse how their own values can have a positive or negative impact on the environment by making a series of decisions about a given scenario on land use.
- Students will suggest positive actions an individual can take on behalf of the environment by developing their own list of conservation actions.



1.4 CURRICULUM TIE-INS

Due to its broad scope, the program *Wilderness and You* fills many niches across the curriculum. It reinforces and emphasizes many learning objectives of school programming, as referred to in the 1987 Alberta Education document "Essential Concepts, Skills and Attitudes for Grade 12". These include the following:

Areas of importance	How these are reinforced or developed
Citizenship	Students are shown the usefulness of participating in society to help solve wilderness-related issues and are introduced to the concept of stewardship.
Global and environmental awareness	Students are shown first-hand an area of wilderness and asked to consider the importance of wilderness areas and the potential impact of man upon the area.
Critical and creative thinking	Students are called upon to explore their associations with wilderness and to examine their own attitudes and thoughts about wilderness issues.
Self-concept and lifestyle	Students evaluate how their lifestyles are connected to wilderness areas and explore their effect on such areas.

NOTE TO TEACHER: In addition, the program *Wilderness and You* addresses some of the goals of the new (1990) curriculum for Environmental and Outdoor Education at the Junior High Level. The program is pertinent to both the environmental and outdoor strands of this curriculum.

2.0 FIELD STUDY: PREPARATION AND MATERIALS

2.1 PREPARATION

1. Decide on which trail you would like to use, then arrange to visit and preview the trail. This will give you an opportunity to select appropriate stops along the path and minimize any unexpected occurrences.
2. Check the **Materials** list below and assemble the items for the class day pack. Photocopy the appropriate number of **Student Wilderness Booklets** (see appendix) and other required items.
3. Take care of administrative requirements; permission slips, trip approval, timetable modifications, parent volunteers, etc.
4. Ensure students are prepared for the trip by discussing appropriate clothing and any concerns they may have about a field study in a wilderness area.

2.2 MATERIALS

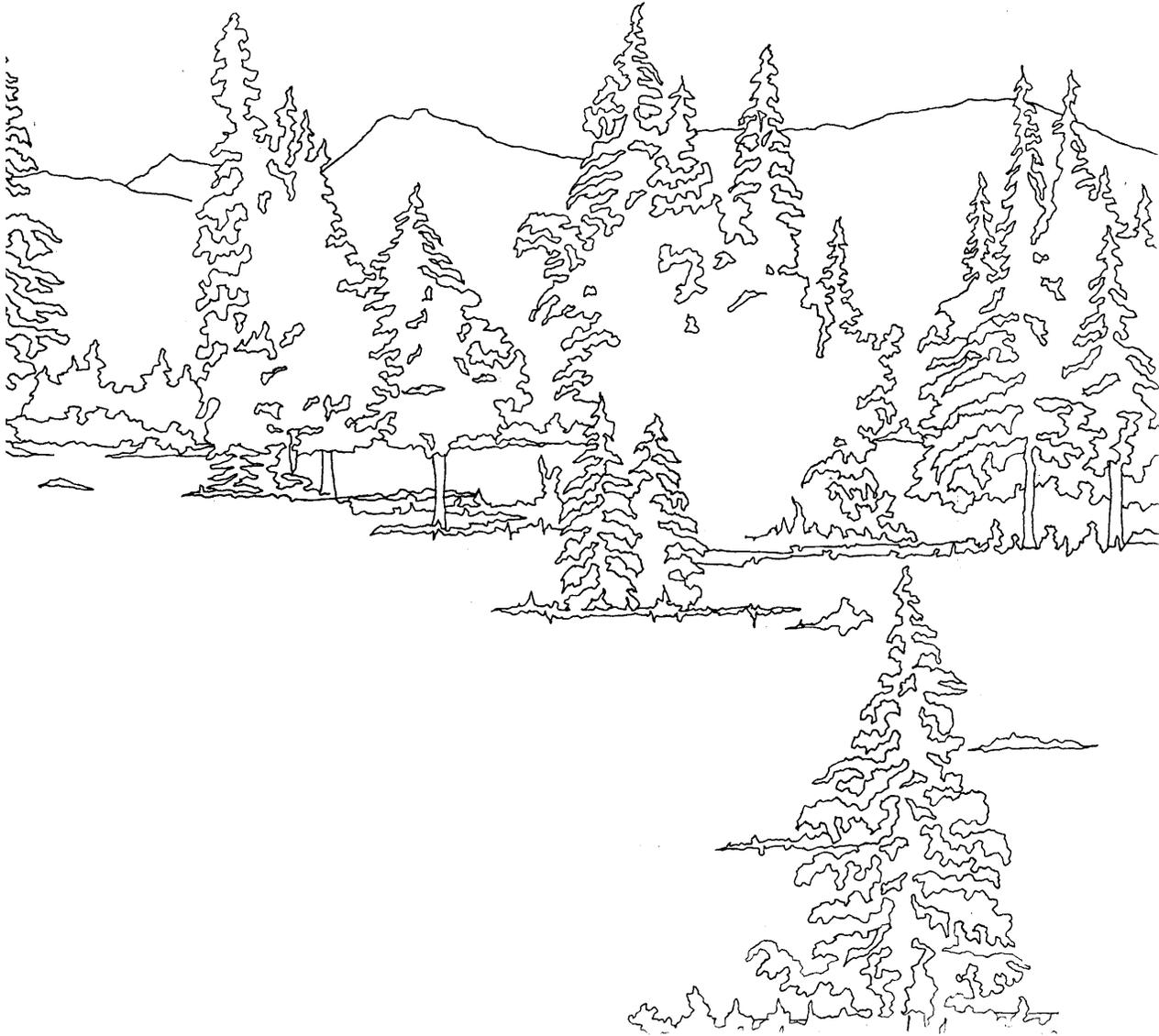
Class Materials

- 1 demonstration day pack with the following contents:
 - waterproof matches, disposable lighter or flint
 - candle
 - pocket knife (Swiss Army type)
 - aluminium foil (1 m x 1 m)
 - two sugar cubes
 - two heavy-duty plastic bags for shelter
 - whistle
 - hatchet (lightweight).
 - water bottle
 - bag of granola or trail mix
 - thin pliable wire, 1 metre long
 - first aid kit
 - 9 metres of thin nylon cord
 - extra clothes and a wool hat
 - adhesive tape



Student Materials

- Each student should bring:
 - 1 student booklet (see Appendix)
 - 1 pencil
 - 1 piece of string (1 metre long) or empty paper towel tube



3.0 FIELD STUDY: TEACHER ACTIVITY GUIDE

3.1 INTRODUCTION TO WILDERNESS Activity 1

Background

This activity will challenge students to develop their own definition of wilderness, a definition that can have many qualities to it. The following are some typical definitions given by students:

“An unsettled, uncultivated region left in its natural condition.”

“A large tract of land growing and living in a natural state.”

“A piece of land set aside to grow wild.”

Throughout this program you will find quotes in *italics*. These can be used with your students to stimulate questions and discussion, or to provide other perspectives on the topic.

Instructions for the Teacher

- a. Discuss any rules you would like the students to follow such as staying on the trails, leaving things as they find them, and staying with the group.
- b. Walk a short distance along the trail until parking lots and buildings are no longer visible. Have the students sit and then ask them what word comes to mind when you say the word **wilderness**. By thinking about words which represent wilderness, people are often better able to define what exactly this concept means to them. Answers might include grizzlies, cougars, endless stands of untouched trees, the colour green, the scent of spruce trees.
- c. Hand out the Student Booklets. Ask the students to turn to **ACTIVITY 1** in their booklet and write 10 words which remind them of the word **wilderness**. The words can be nouns, verbs or adjectives. Examples: wild, beautiful, cruel, forest, pristine, uninhabited.

Discussion

- d. After participants have finished their list of 10 words, ask them to share their lists with the rest of the group. Then ask them to use as many of their words as possible to develop their own definitions.

Transition to Next Step

- e. Explain that they have just talked about what wilderness is to them and next they will have a chance to look at, smell, feel and listen to wilderness.

Teacher's Notes (for your thoughts, ideas on other activities, etc.).

3.2 AWARENESS Activity 2

Background

This stop is intended as an awareness activity - an introduction to the natural environment using our senses. Students may fidget, act bored or show signs of anxiety at being alone in this unfamiliar environment. During the activity, ten minutes may seem like a long time, but try to refrain from calling everyone back early.

Instructions for the Teacher

- a. Take the group up the trail. Have everyone turn to the second page of their Wilderness Booklet and ask them to read the following quote in silence.

*You'll find what you are looking for...
only by going alone,
in silence, without baggage,
can one truly get
into the heart of the wilderness..."*

John Muir

- b. After reading the quote, discuss the following questions with the students:

What do you think the quote means?
What will you be looking for?
What type of baggage is the author referring to?
What is the **heart** of the wilderness?

- c. Explain to the group that they are about to find out what the **heart** of the wilderness is. Hand out a piece of string or the paper tube to each student. Show them how to tie the string so that it forms a loop. They can then open the loop on the ground in order to focus on a certain spot. The paper tube can be used as a telescope for the same purpose.

Tell them that they are going to take their booklets, pencils and string or tube to a spot of their own in the forest. Once in their place they can settle in, survey the area, and use their senses to explore it. They should try to use all 5 senses to interact with the site. Have students open their booklet to **ACTIVITY 2**.

ACTIVITY 2 of the student booklet asks the students to write down six things that they sense during their short time alone. It also asks them to discover one thing that they never knew before.

ADDITIONAL INFORMATION: Tell students about Ernest Thompson Seton, a naturalist who studied wildlife in Canada and the U.S. in the early 1900's. He would often sit in the wilderness for hours, letting nature come to him. Sitting alone in the wilderness became known as a **Seton Sit**.

- d. Lead the students to their quiet place. Walk down the trail and every 20 - 30 feet, have two students move off the trail, one to the left and one to the right, for a distance of 15 - 20 feet. If you have an assistant, divide the class in half and move away from a central location in opposite directions.
- e. After ten minutes, call the students back.

Discussion

- a. Ask the class if they felt comfortable. If not, what made them feel uncomfortable? What did they **do** for the ten minutes? If they were getting impatient, what did they do to alleviate this feeling? What did they notice during their time alone? What new discoveries were made?
- b. If you have time and the background in natural history, go to a small area where everyone can watch. Focus the students' attention on some of the things that can be discovered in just a small area. The circles of string can be used to focus attention. Some questions to ask include:
 - Is the soil wet or dry? What colour is it? Why?
 - Is the area in the sun or the shade? Is the ground cool or warm to the touch?
 - What species of plants are growing here (i.e., grasses, mosses, or nothing)?



- What do you think allows these plants to grow in this area?
- What animals (including insects) can you find here? Can you see any with food?
- Can you think of an area which is very different from this location? What do you think makes it so different?

Once the group has been shown a variety of living organisms and talked about a few of the processes occurring in the wilderness, ask them to think about a painting. Each individual colour that is put on a picture contributes to the end result or overall effect. So it is with the environment -- each individual organism or process contributes to the whole. For example, worms and bacteria are often overlooked because of their small size, yet their role in an environment is significant. Worms are active in aerating the soil and bacteria break down organic materials into smaller and smaller components. Without them, a healthy and diverse environment would turn into an environment in distress. These living organisms and processes give nature its colour and character, and together paint the picture one sees when one is observing the wilderness environment.

Transition to the Next Step

- c. Ask the students to consider what might happen if they were taken from their home environment and placed in a wilderness situation without any preparation. Discussion could highlight such areas as lack of knowledge, limited skills and ability to adapt. The next step will look at limitations, and how people can prepare to stretch their limits, become more knowledgeable, self reliant and adaptable in a wilderness setting.

Teacher's Notes

3.3 KNOWLEDGE - STRETCHING OUR LIMITS

Activities 3 and 4

Background

"The essence of wilderness is the challenge it gives us to use our common sense , to look after ourselves and our friends in an environment where the supports of civilization are few."

S. Herrero

Instructions for the Teacher

- a. Walk down the trail to where the group can sit in a circle. Once assembled remind everyone of how their awareness of and interaction with the wilderness differs from their awareness of and interaction with their home environment. People have their friends and other support systems such as hospitals, stores, schools and police. In the wilderness we do not have this support. Nature is **neutral** and provides no guarantees for those who wish to venture out.
- b. Explain that people often experience a new kind of freedom when they become part of the wilderness. The freedom of self-reliance without the pressures of urban settings. Many people enjoy this self-reliance and are challenged by it. They thrill with the idea that there are **no guarantees**. They are on their own and, to a large part, independent of other people's influence. Other people feel extremely uncomfortable without the urban support systems. Both feelings are valid.
- c. Ask students what needs they would have to meet to travel in a wilderness area. Answers will likely fit into the broad categories of food, water and shelter. To accommodate these needs, we need to bring them along - using a day pack as our means! Having a pack with you, along with essential goods, is one of the first ways of extending one's limits. The pack allows you to **be prepared**.
- d. Divide the class into groups of 4 to 5, and have the students do **ACTIVITY 3**. Ask the groups to come to a unanimous agreement on what to bring.

Discussion

- e. After 10 minutes have a spokesperson from each group report on their list. Pick unusual items and ask why they were chosen. After all groups have reported, review what public safety staff in Kananaskis Country suggest and why. During your review use the class day pack to demonstrate the items, emphasizing light weight, ease of acquisition, low cost and compactness.

KANANASKIS COUNTRY -
ESSENTIAL ITEMS FOR A DAY PACK

The first seven items on this list are those recommended for Activity 3.

- **extra clothing** - The weather can change quickly in the mountains. It is a good idea to be prepared for cold, wet weather with a raincoat and sweater. A wool hat and socks are also good additions to any pack.

- **two heavy duty plastic bags** - You can use the bags as a raincoat and rainpants by simply cutting holes in the bags for your head and legs; or as a mattress if you fill them with leaves, grass and needles.

- **waterproof matches, lighter or flint** - Before making a fire, dig a fire pit by clearing away all living and dead plant material from an area about 1 metre in diameter; you can safely build your fire inside that circle.

- **a snack of dry food** - e.g. granola, trail mix

- **water** for drinking

- **whistle** for emergency communication

- **a candle** for light and to help start a fire

- 1 piece of thin wire

- 9 metres of thin nylon string for repairs, lashing things together, etc.,

- a pocket knife

- heavy duty aluminium foil 1 metre x 1 metre for cooking, insulation or making a water container.

- a hatchet or folding saw to collect wood for a fire or shelter

Instructions for the Teacher

- a. People take on the responsibility for their own safety when they venture into the wilderness, and can often be faced with very stressful situations. Refer the class to **ACTIVITY 4**. Have the students stay in the same groups. Choose one of the situations or have each group pick their own to discuss. Tell them they will have 3 to 5 minutes.

Discussion

- b. Have each group explain to the rest of the class what they would do. Answers to these situations will vary, depending on the knowledge and experience of the group.

Transition to the Next Step

- c. As an introduction to the next stop, explain that in the wilderness, people are limited by their own skills and knowledge. But the wilderness is also limited! Our presence can place great demands on wilderness. Dramatic changes can occur in the wilderness unless precautions are taken and responsibilities assumed. At the next stop the class will examine their own relationships with wilderness and its value.

Teacher's Notes

3.4 WILDERNESS CONNECTIONS AND VALUES

Activities 5, 6 and 7

Background

"If one accepts the concept of an ecosystem as an intimately interlinked system of biotic and abiotic factors, such that each component in it has some interaction with all others, then it follows that it is impossible to do only one thing to an ecosystem. A disturbance at one point spreads like ripples on a pond to all others."

Cowan I. McTaggart

Wherever we are, we bring lifestyles and values which affect the environment, either positively or negatively. Values can be viewed as our personal standards of what is right, proper and desirable. Often they govern how we, as individuals or a group, will act. Personal values and how we see ourselves connected to the environment ultimately plays a large role in what we will do for the world in which we live.

Instructions for the Teacher

- a. Walk along the trail to a point where there is a viewpoint looking over a wilderness area, an area which has some evidence of human presence. Explain that not only do people have limits but so does the natural environment. The limits of a natural environment are challenged whenever we interact with its ecological systems or processes. When a limit is reached, results can be significant and far reaching. For example, the environment can withstand a certain amount of acid rain, but when the amount of acid rain falling on an area increases beyond the system's ability to cope, species of plants and animals start to die, food chains are broken and the ecosystem starts to collapse.
- b. Have the class divide into groups of 4 or 5 and turn to **ACTIVITY 5** in their booklets. Based on their field study to this point, ask the students to take another look at wilderness and develop a complete word picture of what they think wilderness is. A word picture can be thought of as a painting, except one uses words to colour the picture, not paints. Words can be nouns, adjectives, verbs, etc.

Here is an example of a word picture for a house:



After finishing Activity 5, without any discussion, ask the students to turn to **ACTIVITY 6**. Here, students place **themselves** in the picture by writing another word picture and showing their relationships or connections to wilderness. These words may represent feelings, activities, values, concepts, etc.

Discussion

- c. Discuss the two activities, having the students focus on words which reflect their attitudes and values about wilderness. Examples of such words in the diagram above include words like honest, caring, safe, and warm.

Instructions for the Teacher

- d. With this increased awareness of wilderness and its value have students look out from their viewpoint and list all of the indicators of man's presence in the area. Place the list in **ACTIVITY 7**.

Once the list is compiled, have the students imagine the valley **before** any human presence was visible. Gone would be the roads, telephone and power lines, trails, etc. They are the first Europeans to see the area. This new-found wilderness that they view before them is the focus of the discussion below.

Discussion

- e. Ask the students what they would put back into the area. Would there be roads, powerlines and campgrounds? What would happen if certain developments such as trails or roads were not included? How would they balance the pressure to develop with what the students feel are the limits of the natural environment?

Transition to the Next Step

- f. Before taking a break for lunch, introduce the last part of the hike on stewardship or personal responsibility by asking the students to think about the following question:

"How can we put into action what we feel, care or value about the wilderness?"

-- OPTIONAL LUNCH BREAK--

Teacher's Notes

3.5 STEWARDSHIP

Activity 8

Background

“Ours to enjoy, to respect, at times to fear, even to become part of for a brief while if we wish. But above all, it is our responsibility - for its fragile interwoven parts are so easy for man to destroy and so completely beyond our ability to re-create.”

George Brybycin

Instructions to the Teacher

- a. Review the program's main activities: defining wilderness, examining wilderness alone, exploring personal limitations, looking at the limits of wilderness and the values we place on it.
- b. Introduce the concept of **stewardship**. Discuss the meaning of it in relation to wilderness, our home environment, and the rest of the world. Stewardship may be defined as the management of another's property, and is characterized by action, caring, and an informed viewpoint. The spirit of stewardship has been well captured by both of the following quotes:

“We have not inherited the earth from our parents; we have borrowed it from our children.”

author unknown

“Since the beginning of time each generation has fought nature. Now in the life span of a single generation, we must turn and become the protector of nature.”

Jacques Cousteau

Discussion

- c. Ask the students for ways in which they can be stewards for the area they are viewing. Encourage a wide range of suggestions, remembering that the students will most likely not be in this area to carry them out. After the discussion period ask everyone to write down their personal actions in **ACTIVITY 8**, actions which they feel they could engage in at the location and/or back at home.

With action thoughts in mind, give a final opportunity for any last questions or thoughts. Encourage informal discussion while walking back to the hike's starting point. Often, further development of initial thoughts will occur during these walks.

OPTIONAL CLOSINGS

Time permitting, you may choose to close the program by doing one of the two following activities:

Walking Softly

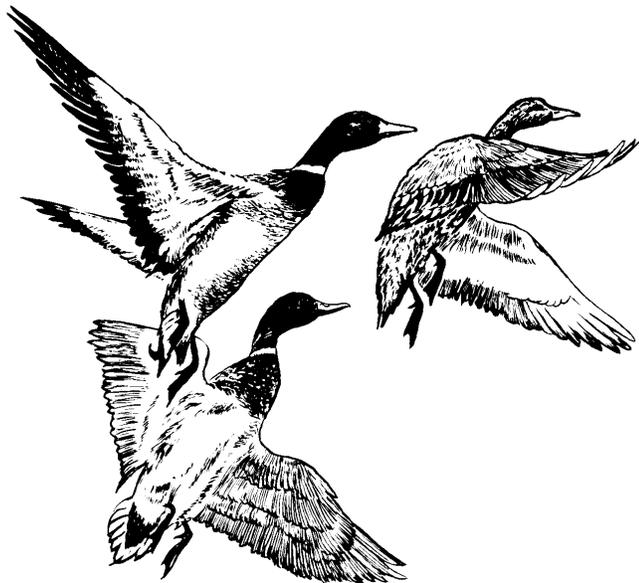
Have the students pair up and choose a tree within 10 to 15 metres of where they are standing. Have them walk to the tree and touch it. As they walk, one student will lead and the other will follow behind, noticing the leader's impact on the environment. Have them switch roles for the walk back to the trail. Do the same thing again, but this time have everyone try to minimize their impact - to walk softly. Partners will notice and comment on any impact. After the activity ask the students which way of walking took the most time and why. Would they improve with practice? Which way felt better? Try it out on the way back to the trailhead.

Viewing Party

Before leaving to go back to the trailhead, set aside 15 minutes for a viewing party. For this activity ask that no one speak from the time you get up until you get back. Tell the class to leave all their packs and follow you silently to a new location, a short distance from your present position.

Have the students sit comfortably within a short distance of one another, facing in the same general direction. Together you can spend the next 10 to 15 minutes silently observing whatever is occurring.

When the time is up, return to your packs. Students may want to share what they observed with their senses. Carry on to the trailhead where your trip began.



4.0 EXTENSION ACTIVITIES

4.1 ADAPTATIONS FOR DIVISIONS I AND II

- a. Ask students to draw pictures of things they know about or have seen happen that would hurt the environment or the wilderness. Ask them to describe what is happening in their drawings. Ask them what people can do in the wilderness that would not be harmful.
- b. Back in the classroom, ask the students to list the things that they receive from the environment, whether they are aesthetic or material, this can be called the **I.O.U.** list or account. Develop another list that includes ways in which we can repay what we owe, this can be called the **Payback** list or account. The challenge is to balance the two accounts by doing something in the classroom, school or community to give back as much as we take.
- c. Have students photograph or draw examples of good and bad environmental situations in the community.

4.2 ADAPTATIONS FOR DIVISIONS III AND IV

- a. POINT OF VIEW
Ask students to write a short paper or develop a collage, drawing or poster that focuses on a serious problem in the Canadian environment. Emphasis should be on what they personally could do to help solve the problem. Have students share their problems and solutions.
- b. DEBATE AN ISSUE
Have students debate an issue related to wilderness areas. An example might be:

"Be it resolved that mountain bikes will not be allowed on any trails in Kananaskis Country."

The following instructional suggestions for an in-class debate may be used:

- a) Use five judges.
- b) Use three-person teams (if one person is absent the day of the debate the team can carry on).
- c) Students must serve as officials -- either as judge, chair, or timekeeper.
- d) Students are to prepare either the "for" or the "against" position.

The following is an outline for the debate structure.

- a) Constructive speeches: 3 minutes.
- b) Discussion (teams can ask questions of each other): 10 minutes.
- c) Break: 5 minutes.
- d) Rebuttal (one from each side): 2 minutes.

Recommended structure of the debate:

Affirmative (pro)	Response (con)
1st Affirmative give need for change	1st Negative attack need and defend status quo
2nd Affirmative present plan	2nd Negative attack plan and defend status quo
3rd Affirmative present benefits	3rd Negative attack benefits and defend status quo

NOTE TO TEACHER: Affirmative speakers should also counterattack in their constructive speeches

c. WALL DISPLAY FOR THE CLASS

You will need a large wall area in a suitable place. Put up large sheets of paper (double thickness of newsprint-butcher type) and supply marking pens. Participants can be told that the information placed on the newspaper should be environment-oriented and is for personal concerns and/or viewpoints.

Write up your own views (teacher/advisor) then ask students to add their opinions and write about their concerns pertaining to the environment. After a number of views have been placed on the **Wall Newspaper** and discussion has taken place, solutions or personal conservation plans can be added. School involvement concerning these areas could also be encouraged by the following actions:

- a) Send the information to the editor of the school newspaper.
- b) As a group, type up a formal letter expressing your views and present it to a school official.

This activity can be used as a discussion focal point throughout the year in current events (Social Studies), environmental science (Science), and creative writing (English/Language). This newspaper may be taken down, but not before a lot of people have had a chance to see it. It's easy to put another sheet of paper up!

NOTE TO TEACHER: This activity can be expanded to all staff members and the student body.

d. LAND USE DEBATE - A SIMULATION

"What to do with the Kananaskis Wilderness??"

1. Divide the class into 5 equal groups. One group of students can be assigned to one of the five interest groups that are shown below:
 - Kananaskis Conservation Club
 - Kananaskis Valley Recreation Club
 - Kananaskis Rock and Gravel Company Ltd.
 - Alberta Forest Institute
 - Kananaskis Country Review Board.
2. For each interest group member, photocopy the appropriate interest group information sheet, located on the following pages.
3. Photocopy the map, 1 copy for each student. Provide each group with the appropriate group information sheets and copies of the map.
4. Students can then read over the description of their group and look at the map of the Kananaskis Valley. The teacher can help clarify student's roles at this time.
5. Competing groups will have 5-10 minutes to decide on a plan of use for the land in the Kananaskis Valley. Their information sheets will tell them how they feel about the land, which determines what kind of plan they will make. They will have 1-3 minutes to present their plan to the Kananaskis Country Review Board. They should use the maps to:
 - draw on hiking trails, ski trails, boat docks, stables, stores, campgrounds, etc.
 - mark land to be mined or logged.
 - show land that won't be used by anyone.
6. Suggestions for the groups:
 - select a spokesperson to speak for the group or have each person present a certain part of the plan.
 - design one map to present to the Kananaskis Country Review Board.
 - try to make their presentation to the Board as convincing and interesting as possible; think of good reasons why the board should implement the group's plan.
 - agree quickly on your land plan.
7. The Board will hear all the presentations. They will have 5-10 minutes to decide which plan or plans they will use. The chairperson or all of the Board will then present their final decision to the rest of the class.

8. At the end of the simulation, when the Board has presented their decision, discuss the following with the class:
 - What will happen to this land in the future because of this plan?
 - Will some groups disagree with this plan? Why? What can they do next?
 - Is this plan good for most of the people?

It is important that students realize it is impossible to satisfy everyone's wants and compromises must be made.

OPTIONAL METHOD

1. Have each interest group develop their own plan, then present this plan to the class.
2. Divide the interest groups so that one member from every interest group is now a member of a new group. This new group must then come up with a new plan for the area that takes into account all of the various interests.
3. Discuss the process of "give and take", plus any other problems encountered.

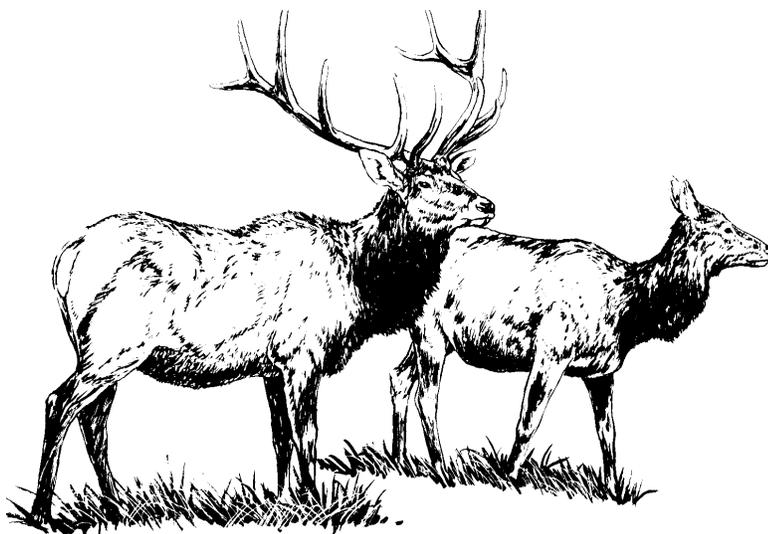
LAND USE DEBATE - A SIMULATION GAME

KANANASKIS CONSERVATION ASSOCIATION

You are all members of the Kananaskis Conservation Association. Your job is to develop a plan for the use of the land shown on the attached map. You will have one minute to present your plan to the Kananaskis Country Board. Be quick -- you only have ten minutes to develop your plan -- but be complete. The Board will also be hearing arguments for competing uses.

Here are some guidelines to help you with your proposal.

1. You consider the marsh areas to be important for wildlife and water quality. These areas should be preserved, and not used by visitors.
2. The lake can be used for limited recreation (for example, boats but no motors).
3. You feel that the entire area should be used for low impact recreation (i.e. hiking, nature programs, cross-country skiing).
4. Some trails can be built but they should skirt marsh areas.
5. You strongly oppose high-impact recreational uses (i.e., motorboating, all-terrain vehicles, hunting) and industrial uses.
6. One small campground in an upland area would be acceptable.

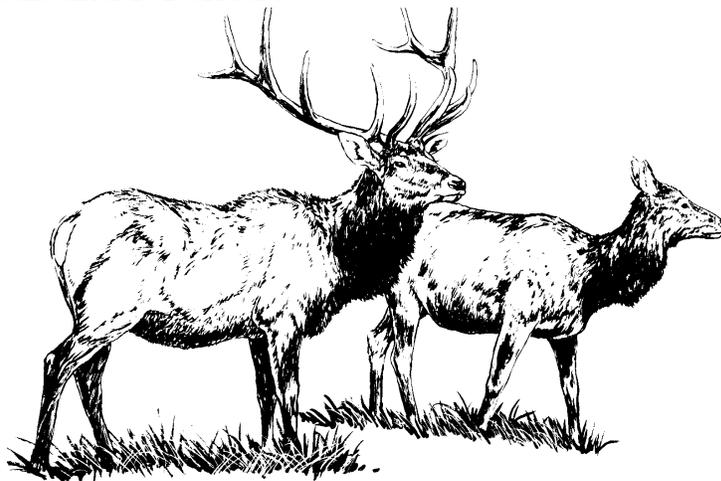


LAND USE DEBATE - A SIMULATION GAME KANANASKIS VALLEY RECREATION ASSOCIATION

You are all members of the Kananaskis Valley Recreation Association. Your job is to develop a plan for the use of the land shown on the attached map. You will have one minute to present your plan to the Kananaskis Country Board. Be quick -- you only have ten minutes to develop your plan -- but be complete. The Board will also be hearing arguments for competing uses.

Here are some guidelines to help you with your proposal.

1. You would like to see managed use of the land for as many different kinds of recreation as possible.
2. Your main interest is in active recreation (i.e., motorboating, water-skiing, hunting, all-terrain vehicles, horsemanship, etc.).
3. You would like to see support services and structures related to recreation (for example, campgrounds, boat docks and gas pumps, a store, stables, etc.).
4. You recognize a need to maintain part of the marshland for water quality and the attraction of wildlife for hunting.
5. You oppose any industrial use of the land.
6. A limited amount of logging would be acceptable to you. In fact, it would help clear areas for campgrounds, but some trees should be left as a windbreak and for shade.



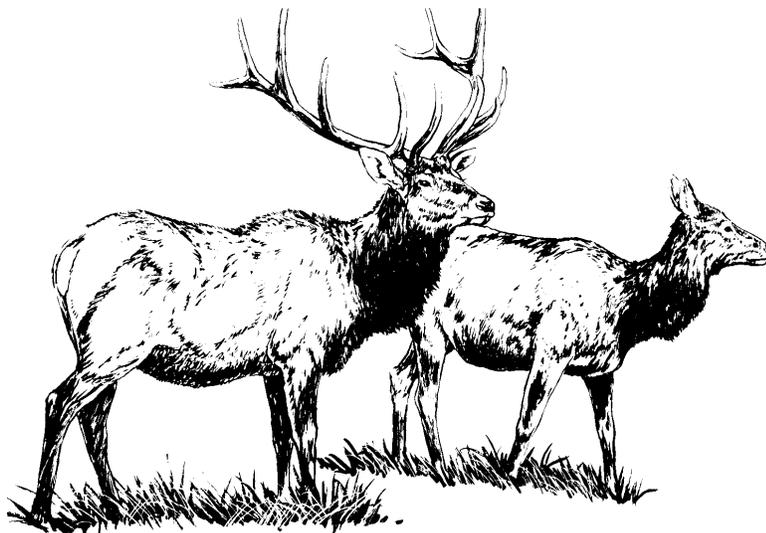
LAND USE DEBATE - A SIMULATION GAME

KANANASKIS ROCK AND GRAVEL COMPANY, LTD.

You are all members of the Kananaskis Rock & Gravel Company, Ltd. Your job is to develop a plan for the use of the land shown on the attached map. You will have one minute to present your plan to the Kananaskis Country Board. Be quick -- you only have ten minutes to develop your plan -- but be complete. The Board will also be hearing arguments for competing uses.

Here are some guidelines to help you with your proposal.

1. You understand the need for minimum impact -- especially protection of watershed and marshland from surface mining.
2. You have to mine at least 1/4 of the upland areas (fields and forests) to make a profit. You would like to mine at least 1/2 of the upland areas.
3. Mining would be surface strip mining, removing rock and gravel to a depth of ten meters.
4. You will reclaim all mined areas when the mining is completed.
5. You would like to make your operation compatible with recreational uses if possible.



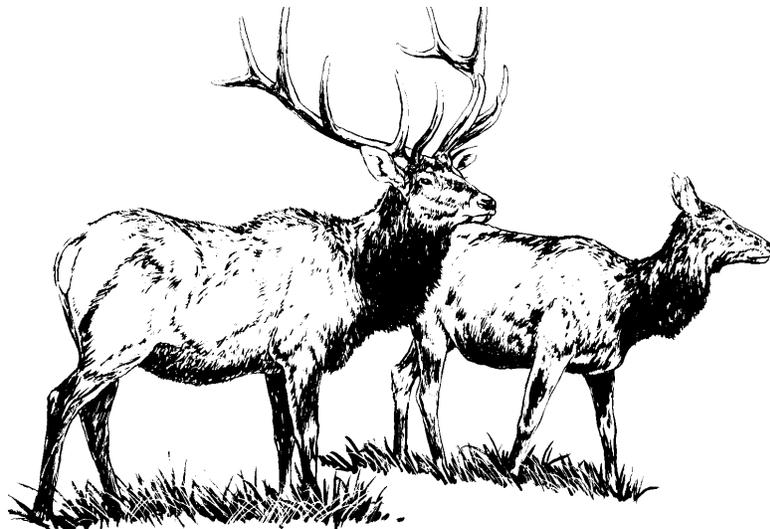
LAND USE DEBATE - A SIMULATION GAME

ALBERTA FOREST INSTITUTE

You are all members of the Alberta Forest Institute, a Crown Corporation. Your job is to develop a plan for the use of the land shown on the attached map. You will have one minute to present your plan to the Kananaskis Country Board. Be quick -- you only have ten minutes to develop your plan -- but be complete. The Board will also be hearing arguments for competing uses.

Here are some guidelines to help you with your proposal.

1. You will take steps to protect the lakes and marshes from any impact resulting from logging operations.
2. You feel that the salvaging of beaver-damaged timber would be of economic as well as social value. You can make money from the timber while making the area more attractive.
3. You have to log at least 2/3 of the forested areas (including the damaged trees) to make a profit, but you feel that 3/4 of the forested areas can be logged without impact on the surrounding areas.
4. You feel that recreational use of the area can go on during and after logging operations.
5. You will reclaim and replant all logged areas.

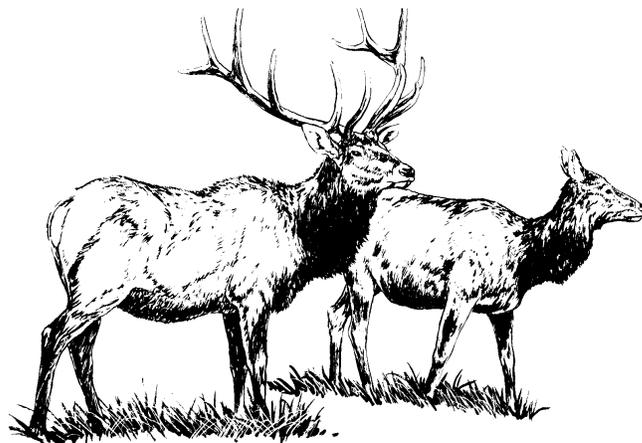


LAND USE DEBATE - A SIMULATION GAME KANANASKIS COUNTRY REVIEW BOARD

You are all members of the Kananaskis Country Review Board. It is your job to hear the different proposals for the use of the land shown on the attached map, and then decide how the land is going to be used. Listen closely to each proposal -- you will then have about five minutes to decide how the land will be used and explain your decision to the competing groups.

Here are some guidelines to help you with your proposal.

1. Protection of water quality is very important. Use of marshland, and to a lesser extent lakes, must be carefully controlled for this reason.
2. You would like to see the land used for several different purposes so long as most of the area will not be permanently changed.
3. Activities that will bring in money (i.e., logging or strip mining) need to be considered. Those activities however shouldn't take up most of the site. Any area used for these purposes must be reclaimed.
4. The lakes are subject to yearly changes in water levels. Any development on or near the beach must take this into consideration.
5. Wildlife is an important resource of the area and should be considered in any development plans. Marshes are important areas for wildlife.
6. You don't have to accept any one proposal. Your final decision may combine parts of several proposals.



5.0 WILDERNESS ...AND YOU - PROGRAM EVALUATION

Kananaskis Country Environmental Education materials have been developed to provide you with teacher-directed units of study. These are *living documents* that undergo changes on a continual basis.

The purpose of this questionnaire is to find out if these materials are meeting your teaching needs. Your comments are valuable to us. Please take a few minutes to complete this evaluation so that we may continue to improve your materials.

School name	Grade level taught	Your name <small>(optional)</small>
_____	_____	_____

- ★ How did you hear about the program?
- workshop
 administration
 in-service
 newsletter
 fellow teacher
 other (please specify) _____

- ★ Did you use all of the program? yes no
- If you answered **no**, which part did you **not** use and why?
- _____

- ★ On the bar line below how would you rate the program in the following categories:

	YES		NO
• appropriate for grade level (✓)		-----	
• clear instructions		-----	
• text easy to follow		-----	
• relevant to curriculum		-----	
• materials easy to use		-----	
• did you enjoy the material		-----	
• did your students like the material		-----	
• program of appropriate length		-----	

- ★ Approximately how long did it take you to complete these materials?
 1-2 weeks 3-4 weeks 5-6 weeks longer than one month
 program was spread over the year

- ★ Were you satisfied with how these materials fulfilled the curriculum objectives?
 yes no
 If you **were not** satisfied, please elaborate: _____

- ★ Did you require any additional information to complete any part of the program?
 yes no
 If **yes** please tell us what was required:

- ★ Would you use these materials next year?
 yes no
 If you answered **no** please tell us why: _____

- ★ Any additional comments about the program in general? _____

Thank you for completing this questionnaire. Please place the completed questionnaire in an envelope and mail to:

Environmental Education Coordinator
 Alberta Environment, Natural Resources Service
 Kananaskis Country
 Suite 201 - 800 Railway Avenue
 Canmore, AB T1W 1P1

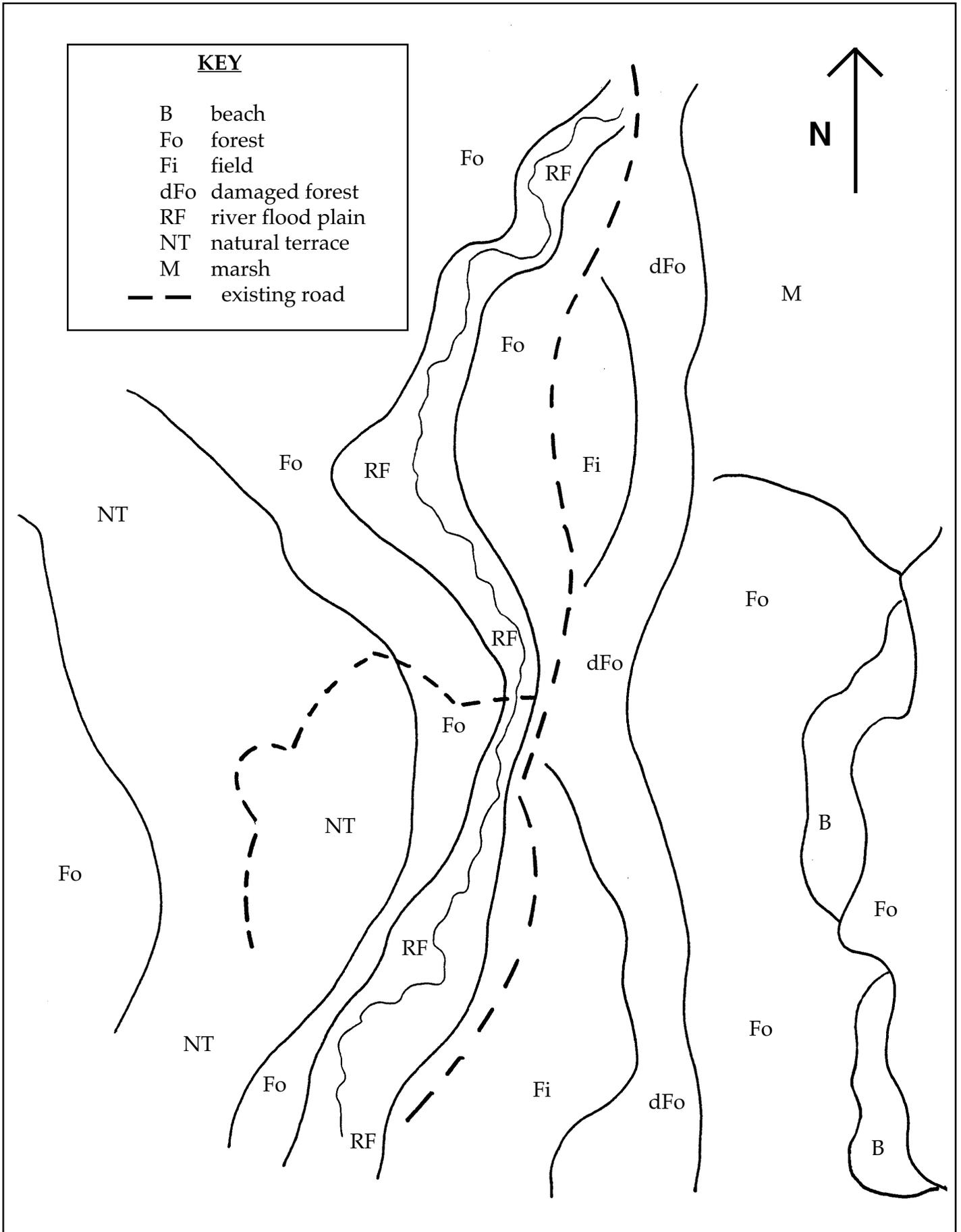
APPENDICES:

- 1. MAP OF KANANSKIS COUNTRY FOR SIMULATION GAME**
- 2. WILDERNESS AND YOU - STUDENT BOOKLET**

SIMULATION GAME MAP

KEY

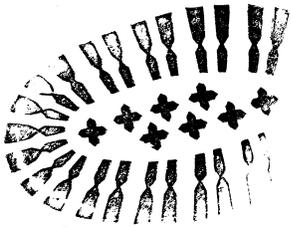
- B beach
- Fo forest
- Fi field
- dFo damaged forest
- RF river flood plain
- NT natural terrace
- M marsh
- - - existing road



ACTIVITY #7

SIGNS OF HUMANS

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

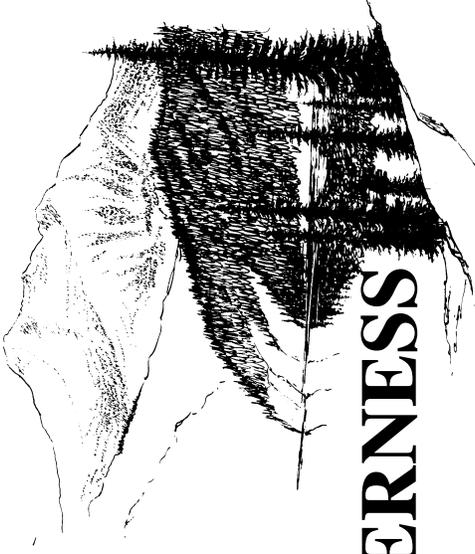


ACTIVITY #8:

Being a Steward -

Actions:

- 1.
- 2.



WILDERNESS

...AND YOU



STUDENT BOOKLET

YOUR NAME: _____

ACTIVITY #4

As a group, choose one of the following situations to discuss. Be prepared to explain to the rest of the class what your group would do.

- a) You are on a day trip and you have only brought the seven items you chose from Activity #3. Although it is a sunny, summer day, an unexpected storm has quickly come up from the north and you are still 3 hours from your car. What would you do?
- b) On the first day of an overnight trip, one of your group falls and breaks his leg badly. His life is not in danger and you can move him, but he needs medical care. You have been hiking generally uphill for three hours since leaving the trailhead. It will be dark in two hours. What would you do?
- c) You are day hiking in an unfamiliar area. The trail is intersected several times by other trails. You follow the one you believe is headed toward your destination and after several hours you notice the trail dwindling away to nothing. You realize that you have lost your way. Upon checking your watch you realize you only have about two hours of daylight left. What would you do?



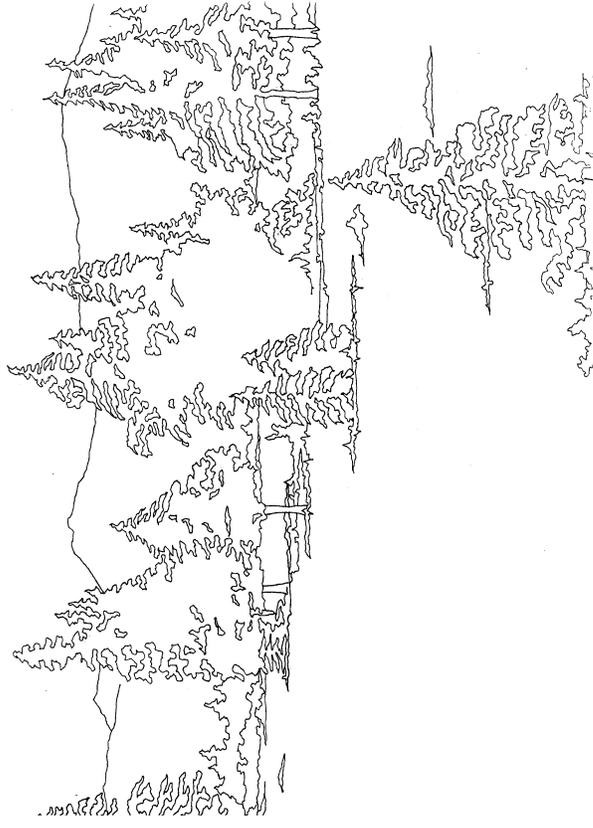
ACTIVITY #2

Fill in the following sections during Activity #2:

Something I sensed during my solo sit:

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

My new discovery:



ACTIVITY #3

It is a sunny, summer day in the mountains, and you are heading out on a trail for a day hike. The weather is great, so you are lightly dressed and you do not want to take more than seven items along with you. As a group, choose the seven items from the following list that you feel you should take, and circle those items.

matches
thin nylon string
sugar -- 2 lumps
plastic sheet -- large
sunglasses
candle
adhesive tape
bouillon cube
axe
whistle
light rope
aluminium foil
extra clothing - sweater, socks
2 heavy-duty garbage bags
pocket knife
compass
map
electrical wire
first aid kit
water
dried food

Kananaskis Country recommends:

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

