

ALBERTA ENVIRONMENT

Welcome to My Home



Alberta
ENVIRONMENT

Kananaskis Country

This publication is part of a series of field study programs produced by the Environmental Education Program of Natural Resources Service in Kananaskis Country and Fish Creek Provincial Park. The publications have been written to address the mission of Alberta Environment 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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Welcome to My Home

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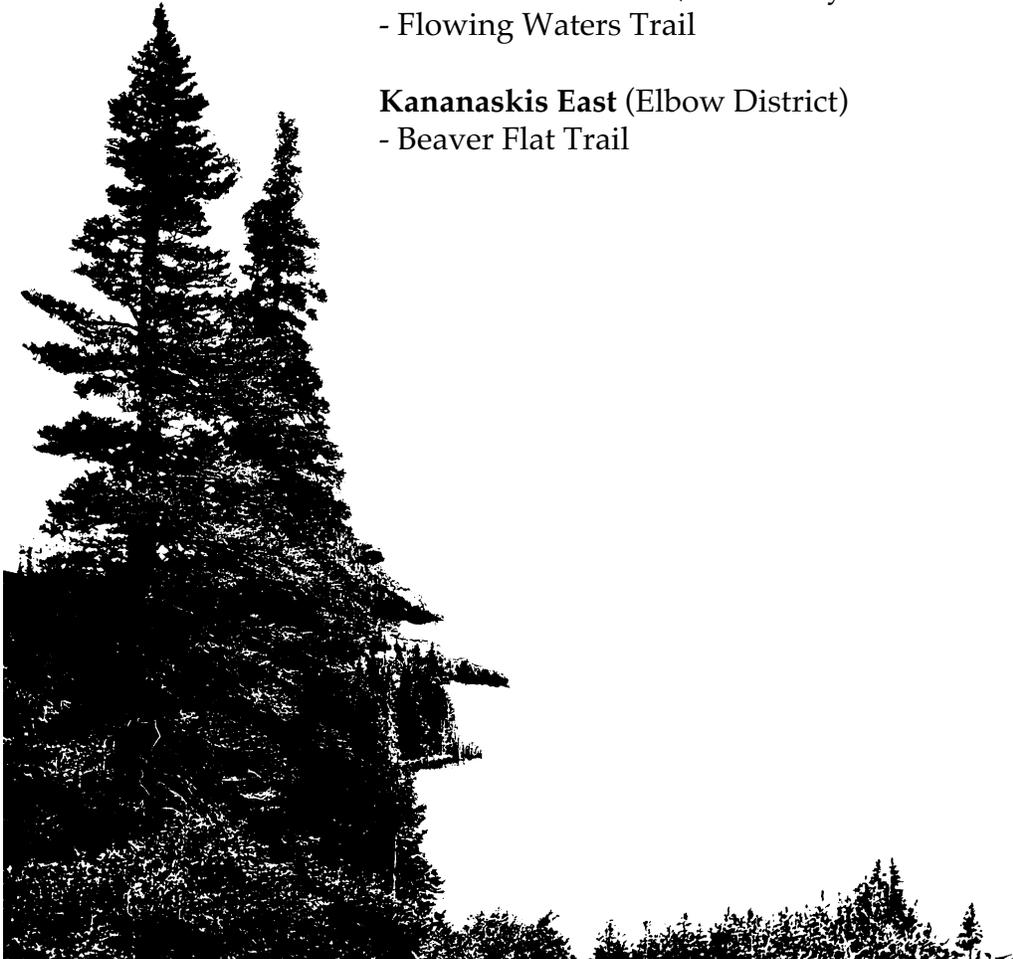
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1.0 OVERVIEW

1.1 AT A GLANCE

TOPIC	Meeting Basic Needs
PROGRAM LEVEL	Grades 1 - 3/ Ages 6 - 8
TIME REQUIRED	- Pre-field Study Activity: 1 hour - Field Study: 2 - 3 hours - Post-field Study Activities: varies
STAFF REQUIRED	One teacher with parent volunteers. Recommended ratio 1 adult: 5 students
BEST SEASON	Spring or fall
SUGGESTED LOCATIONS	Kananaskis Central (Bow Valley Provincial Park) - Flowing Waters Trail Kananaskis East (Elbow District) - Beaver Flat Trail



1.2 PROGRAM SUMMARY

Welcome to My Home is a field study focusing on the concept of basic needs. The program helps students discover how animals meet their needs within the environment. For the field study, beavers have been chosen as the animal to investigate.

A Student Booklet has been provided to guide students in a variety of on-site activities investigating the beaver's basic needs. A Volunteer Booklet has also been provided to assist volunteers in directing the students' activities. With little preparation, volunteers will be able to assist the students and teacher in conducting the activities. The activities are designed to stimulate interest and encourage experiential learning through observation, comparison, contrast, and identification tasks. The program focuses on Grade One students but can also be used at other grade levels.

Throughout the program, space has been set aside under the heading **Teacher's Notes** for you to add your own thoughts, ideas, and variations to the activities.

This program is part of a written unit for Division 1 on needs, families, and communities. Each program can be used separately or the three programs can be combined as a separate unit of study. The three parts includes:

Welcome to My Home - a field study designed to encourage students to discover how beavers meet their needs within the environment. This field study offers an excellent introduction to the story *Living and Loving the Life of a Beaver*.

Living and Loving the Life of a Beaver - a story and activity guide about two children who go on a field study to a beaver pond. While there, they meet a beaver who shrinks them down in size and takes them on a trip where the children discover what beavers eat, where they sleep, what their family life is like, and who their enemies are. Activities related to the topics covered in each chapter are included. This story offers background to another field study entitled *Pond Pals* which focuses on a pond community.

Pond Pals - a field study where students discover how plants and animals meet their needs in a pond community. In a pre-field study activity, students create a pond on a bulletin board. A selection of post-field study activities are included.

1.3 PROGRAM OBJECTIVES

All of the following objectives need not be met. Teachers can select certain objectives which they may wish to emphasize during the program. Students will have the opportunity to:

1. gain an awareness of the natural environment through experiential exploration and learning.
2. understand that plants and animals are distinct and have different characteristics.
3. understand that all living things have basic needs: food, water, shelter and space.
4. understand that animals rely on plants for food.
5. use words and designs to describe and illustrate the environment.
6. develop an awareness and sensitivity toward the environment and begin to recognize interrelationships.

1.4 CURRICULUM TIE-INS

This program supports selected themes and objectives outlined in the Alberta Curriculum for Division I Science and Social Studies. Selected themes and objectives are covered using the natural environment as the focus. Such a focus allows students, at their own level, to explore the concept that they are **a part of**, rather than **apart from** the world in which they live. Curriculum tie-ins are indicated in each activity. In general, the following areas are addressed:

DIVISION	SUBJECT	SUBJECT MATTER
One	Science	Living Things and the Environment - Plants and Animals - Environment

2.0 PRE-FIELD STUDY

2.1 EVERYBODY NEEDS A HOME

Before going on the field study, it is important for students to be familiar with the basic needs of all plants and animals. These basic needs include food, water, shelter, and space. In this activity, students will look at their own needs and compare their needs with those of other animals. This activity can also be found in the program *Living and Loving the Life of a Beaver*.

Objective

Students will understand the basic needs of humans and other animals.

Curriculum Tie-ins

Science: Living Things and the Environment - Plants and Animals

Plants and animals are living organisms. Each has its specific characteristics and particular needs to sustain life.

Plants and animals live in the habitats for which they are best suited.

Time Required

30 - 40 minutes

Materials

- 1 copy of the drawing of the *Beaver Home* (see page 6)
- 1 piece of drawing paper for each student
- 1 package of crayons for each student

Instructions for the Teacher

1. Using the crayons and paper, have the students draw a picture of where they live. Their pictures should include the place where they cook, the place where they sleep, the place where they get water, and their neighbourhood.
2. When their pictures are complete, ask the students about what they drew. Ask them about the things they need to live. Explain the concept of basic needs; the things we need to survive. Compare those basic needs with other needs (love, health, and schooling) and wants (television, videos, and toys).
3. Display the students' pictures in the classroom. Explain that each of the students has a home.
4. Ask the students to close their eyes and imagine what kind of a home they think a beaver lives in. Ask them to describe where they think a beaver lives.

5. Show them the picture of the beaver home. Talk about the lodge being the beaver's home. To get into its home, the beaver must swim underwater to get to a tunnel which leads into a dry chamber inside the lodge where it lives.

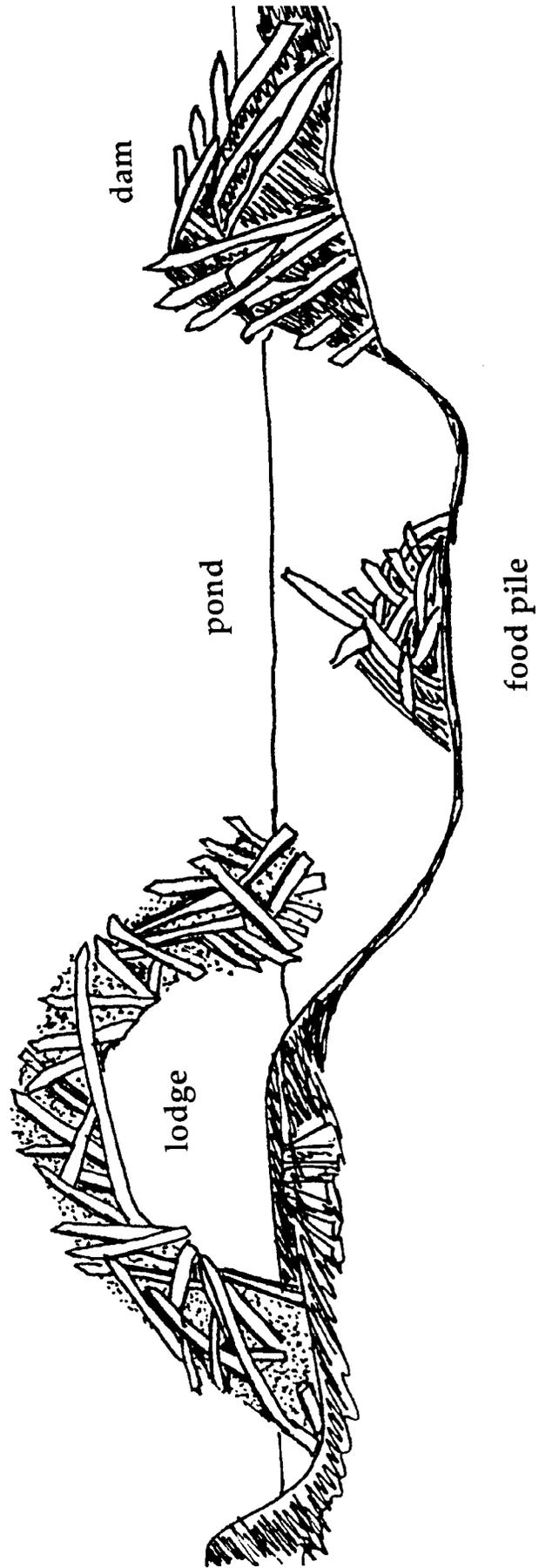
Explain that when beavers build dams across a stream, water builds up behind the dam forming a pond which is like the beaver's neighbourhood.

6. Discuss the fact that beavers need a home, a neighbourhood, food, and water just as people do. Ask students where they get their food from (*the store, the farm*). Where do other animals get their food from? (*the forest, field, pond, ocean, etc.*)
7. Ask the students to name three reasons people and animals need a home. (*Homes provide animals with protection from the weather, safety from predators and a place to raise their young.*)

Teacher's Notes



BEAVER HOME



3.0 FIELD STUDY

The field study will give students the opportunity to discover how a beaver meets its needs in the environment. Each activity relates to one of the four basic needs of food, water, shelter, and space.

Objectives

Students will:

- gain an awareness of the natural environment through experiential exploration and learning.
- understand that all living things have basic needs: food, water, shelter, and space.
- understand that animals rely on plants for food.
- use words and designs to describe and illustrate the environment.
- develop an awareness and sensitivity toward the environment and begin to recognize interrelationships.

Curriculum Tie-ins

Science: Living Things and the Environment

The environment includes all of our surroundings, both man-made and natural. It plays an important role in our lives.

Plants and Animals

Plants and animals are living organisms . Each has its specific characteristics and particular needs to sustain life.

Time Required

2 - 3 hours

Materials

A Student Exploration Kit for each student containing:

- 1 *Welcome to My Home* Student Booklet (see Appendix III)
- 1 clipboard. Each clipboard can be made from a 22 cm x 30 cm piece of cardboard with 2 strong elastic bands wrapped around it. The elastic bands help keep the booklets in place on the clipboard.
- 1 pencil
- 1 piece of string one metre long. Tie the ends of the string together and tie or tape the pencil to the string. The students can wear their pencils around their necks.
- 1 piece of string - 30 cm long with the ends tied together to form a loop
- 1 snoop tube. A paper towel roll can be cut in half to make two snoop tubes. A piece of string can be used to fasten the snoop tube around a student's neck.
- 1 dark coloured crayon

For Each Volunteer

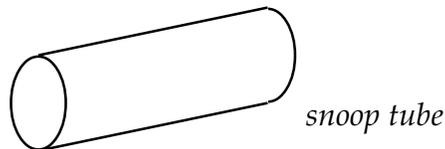
- 1 *Welcome to My Home* Volunteer Booklet (see Appendix II)

For the Teacher

- 1 *Welcome to My Home* Volunteer Booklet (see Appendix II)
- 1 whistle
- 1 bag for each group of 4 - 5 students. Each bag should be large enough to carry 4 - 5 Explorer kits.

Instructions for the Teacher Before the Field Study

1. Choose an area for the field study and visit it before the day of your class's arrival to become familiar with how to get there as well as the site's facilities, features, and hazards. The area should include a pond with a beaver dam and lodge. The site should be large enough for all the groups to do their discovery activities separately.
2. Arrange for program assistance by enlisting the help of parents, school volunteers, or high school students. This program is designed for small groups. A ratio of 1 volunteer to 5 students is recommended. It is also recommended that the teacher be free to circulate among the groups and provide assistance when needed. The volunteers' roles are to keep their groups on task, to direct questioning, and to offer assistance when needed.
3. Each volunteer should receive a Volunteer Letter (see sample, Appendix I) and a copy of the *Welcome to My Home* Volunteer Booklet at least two weeks prior to the field study to allow time for review and program familiarization.
4. One to two weeks before the day of the field study, send a letter and consent form to the children's parents. Children will need a warm jacket, a hat, and a packed lunch or snack. It is recommended that the teacher bring some extra clothes in the event that someone falls in the water.
5. Collect the materials listed above for each student's exploration kit.
6. Before the field study, give the students the opportunity to build and use their snoop tubes in the classroom. The purpose of the snoop tube is to focus the student's attention. The students look through the tube at small objects and organisms.



7. Divide the students into groups of five and assign a volunteer to each group. Place each student's exploration kit in the group's bag. Label the bag with the names of the students in the group and the name of the adult volunteer.

Instructions for the Teacher During the Field Study

1. Before departing on your field study, meet with volunteers to review any questions they may have about the field study and the Volunteer Booklets. Remind volunteers that the instructions in their booklets are designed to help them direct students' discoveries. Caution the volunteers against giving the students the answers.
2. At the site, assemble your class in an open area. Establish boundaries for the activities. These boundaries could be delineated by rivers, creeks, pathways, or distinctive trees. You can also establish a boundary by telling students to always be where they can see their adult volunteer and their adult volunteer can see them.

NOTE TO TEACHER: In Provincial Parks and Recreation Areas, plants and animals are protected. Please encourage the students to look, touch, smell, and feel while leaving things as they found them. No picking or collecting.

3. Introduce the field study by having the students turn to page one in their booklets which outlines the four basic needs of food, water, shelter, and space. Review the four basic needs with them and review with them how they meet their own needs. Tell students that all animals have the same needs but that each animal meets its needs in a different way. They are now going to discover how one kind of animal, the beaver, meets its needs.
4. Review the use of the snoop tubes with the students.
5. Divide the students into their groups of four or five with their volunteer. Each volunteer will receive the group's exploration kit. Explain to the students that they will now spend some time in their exploration groups. Establish a time and place to meet at the end of the exploration. You may wish to blow a whistle to call the groups back.
6. Send the groups out to do the activities in their booklets. The groups should spread themselves out along the pond shoreline so that they all have room to work independently. Have the students record the information they collect in their booklets. If the students are not yet able to read and write, have the volunteers read the questions out loud and have the students share their answers.
7. Once the groups have dispersed, the teacher's role is to circulate, answer questions and be an interested observer.

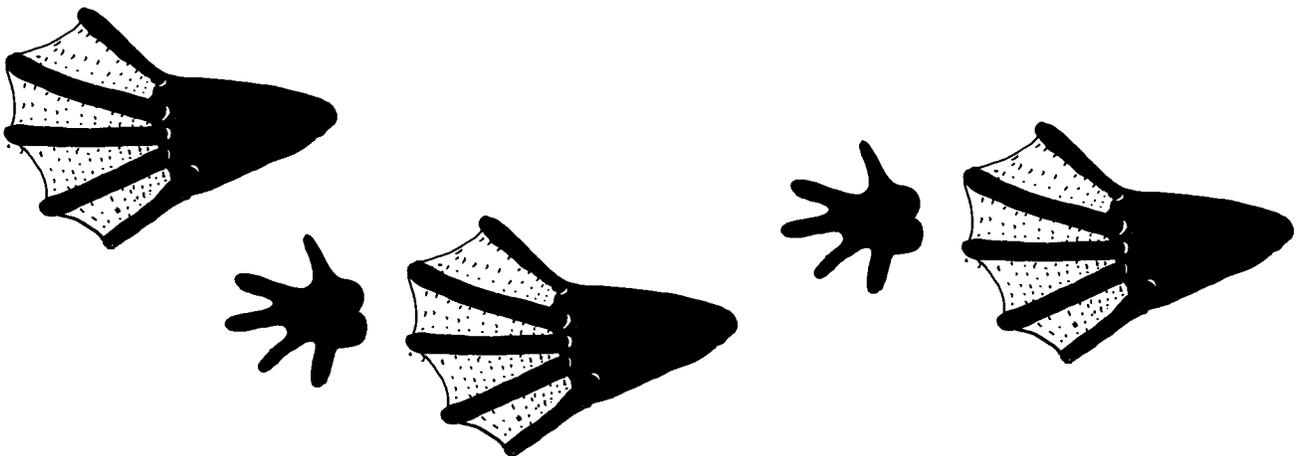
Discussion

8. The discussion will provide students with the opportunity to share what they have discovered about beavers with their classmates and volunteer leaders.

When the students have completed the activities in their booklets, gather the whole group together in a circle.

9. Ask the students these questions and discuss their answers:
- **From your study today, what do you think beavers eat?** (*twigs, leaves, soft underbark, and pond vegetation*)
 - **What do you think beavers use water for?** (*for drinking, work, travel and play*)
 - **What is a beaver's home called? (lodge) What do you think the lodge is made from?** (*branches, shrubs and mud*)
 - **How do you think beavers get into their homes?** (*Explain that inside a beaver lodge is a little room which is dry. To get to that room, beavers swim underwater to a tunnel which leads up into that room. Beavers sleep in that room.*)
 - **What is the beaver's neighbourhood called?** (*a pond*)
 - **Did you see any beaver clues? If so, what were they?**
 - **Did you see any other signs of beaver neighbours? If so, what did you see?**

Teacher's Notes



4.0 POST-FIELD STUDY

The two activities below give the students the opportunity to further explore the knowledge they gained during their visit to the beaver pond.

BEAVER POND MURAL

1. Start the mural by attaching newsprint to the bulletin board. The teacher can either leave the paper blank or draw in the main elements of a beaver pond including a beaver dam, beaver lodge, and the water.
2. Have each student draw two pictures. One should be of something special they saw at the beaver pond and the other should be a picture of something that they think beavers need.
3. Pin the students' pictures to the mural. Ask them whether they think the pictures are related to any of the beaver's basic needs of food, water, shelter, or space.

MEETING BEAVER NEEDS

1. Have the students draw a picture of a beaver home. Their pictures should include a place where the beaver gets its food, a place where it sleeps, and the beaver's neighbourhood.
2. Ask the students to compare these pictures with those drawn in activity 2.1 *Everybody Needs a Home*. How do beaver's homes compare to their own homes? How are they similar? How are they different?

5.0 WELCOME TO MY HOME 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 (optional)
_____	_____	_____

- ★ 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 - Provincial Building
800 Railway Avenue
Canmore, AB. T1W 1P1
Phone: 403-678-5508 Fax: 403-678-5505

APPENDICES

- I VOLUNTEER LETTER
- II ***WELCOME TO MY HOME*** VOLUNTEER BOOKLET
- III ***WELCOME TO MY HOME*** STUDENT BOOKLET



APPENDIX I: VOLUNTEER LETTER

Date

Dear

On _____, 19__ you will have the special opportunity to share with children the excitement and the wonder of investigating the natural environment, by experiencing it with them, listening to them and talking with them about what they observe and what they think about the world in which they live.

The activities which the children will be doing are outlined in the enclosed *Welcome to My Home* Volunteer Booklet. Please read over the activities to familiarize yourself with them and bring the booklet along for reference. Feel free to participate in the activities with the children so you too can experience the exploration and share your observations.

Please try to complete all the activities during the field study. However, if the children are intrigued with one aspect, it is better to give them time to examine it than to rush onto the next activity. The children will be given their own booklet in which to record their observations.

Children should avoid trampling vegetation and removing things from the environment, so encourage them to come and get you if they find something exciting, rather than having the children bringing things to you.

Thank you for volunteering your time. I am looking forward to an enjoyable day!

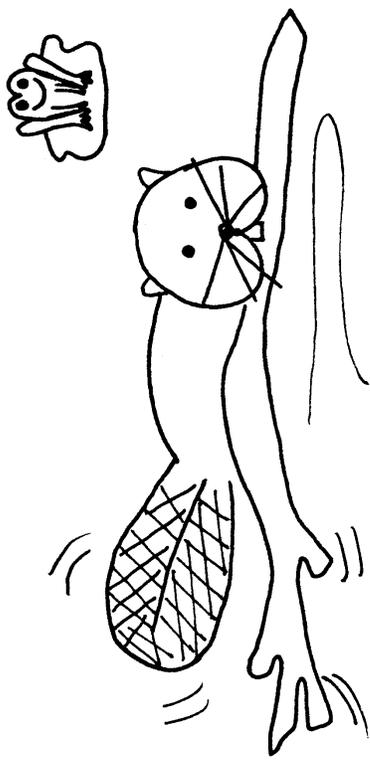
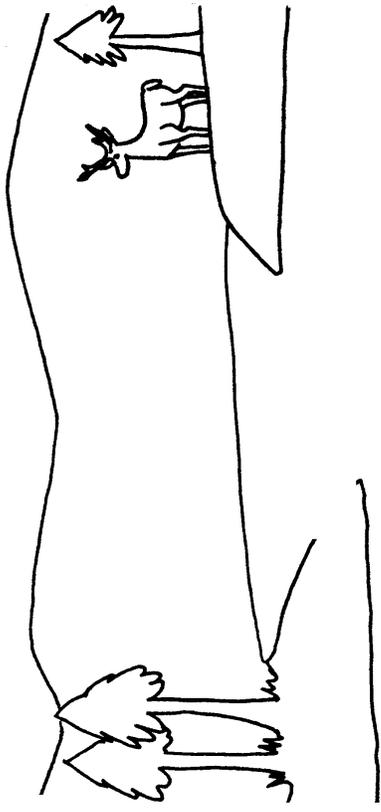
Sincerely,

Teacher

"If a child is to keep alive his inborn sense of wonder... he needs the companionship of at least one adult who can share it, rediscovering with him the joy, excitement and mystery of the world we live in."

(Rachel Carson, 1965)

WELCOME TO MY HOME



VOLUNTEER BOOKLET

TO THE VOLUNTEERS:

The Welcome to My Home field study has been designed to encourage students to investigate a beaver neighbourhood and determine how beavers meet their needs.

You will be leading a small group of students through the booklet activities. Each page of this Volunteer Booklet shows you what the students' booklets look like. It also gives you some directions to help the students in their discoveries. Each activity should take 5 to 10 minutes. After completing these activities, the whole class will get together for a discussion.

As you help the students work through their booklets, try to draw comparisons between how beavers meet their needs and how the students meet their needs. Your main job is to help the students make their own discoveries rather than tell them the answers. If the students are not yet able to read or write, your job will also include reading the instructions to them and leading them in a discussion of their answers.

*Remind the students that they will be observing living things. All living things should be left where they are found. Encourage students who have found something that they may wish to share to **take you to their** discovery.*

Thank you for your help. Have an enjoyable adventure!

Have students look for beaver clues and identify them by circling the appropriate booklet diagrams.

~~~

## I Spy... Beaver Clues!!

Beavers leave many clues that tell you that they live in the area. Circle the beaver clues you have seen.



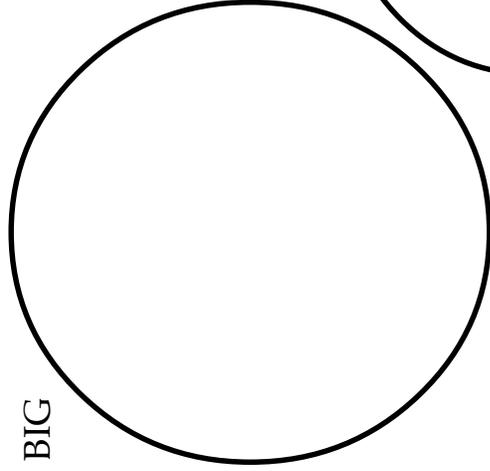
*Using their snoop tubes (paper towel rolls) and loops of string, have students explore the beaver's neighbourhood by looking for big and small neighbours. Have the students place their pieces of string on the ground, using them to guide their observations. Have them look through their snoop tubes to focus on the neighbours inside the loop area.*

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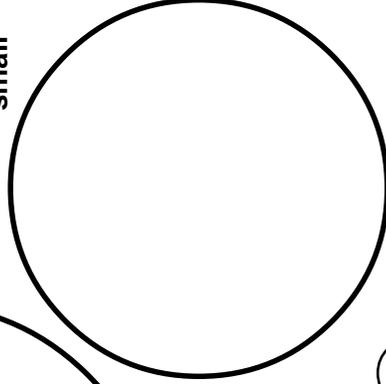
Beaver's Neighbourhood

Look at the beaver's neighbourhood a little more closely. Using your snoop tube and string, look for big and small neighbours who live here. They can be plants, insects, or animals. Draw them in the circles below.

BIG



small



Basic Needs

There are four basic things that all living things need:

1. Food
2. Water
3. Shelter
4. Space

People need these 4 things and so does the beaver.

You will be looking in this area to find how the beaver meets its needs.

Turn the page for more...

Read the information on this page out loud and allow the students in your group to share how they meet their need for food. Encourage students to explore the area using the diagrams in the booklet as a reference or starting point.

~~~

## Food

The beaver needs food just like you. Write the names of some of the foods you eat in the space below.

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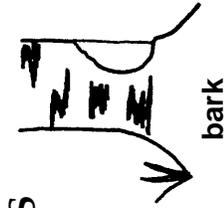
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Beavers eat twigs, leaves, soft underbark and pond plants.

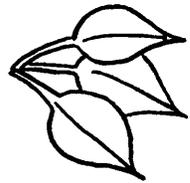
Circle any beaver foods you can find:



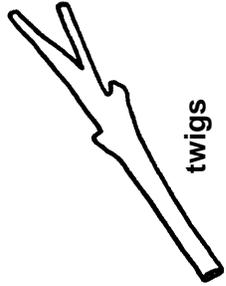
cattail stalks



bark



leaves



twigs

## BEAVER FOODS

In this activity, the need for space is compared to human neighbourhoods to make the concept of space relevant to the students. Encourage students to look carefully for signs of other neighbours and stress the concept of sharing space.

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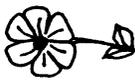
Space

We all need space around us to live. Where is your own special space?

In towns and cities our homes are in a space which we call neighbourhoods. Beavers share space with neighbours such as plants and animals.

Look for the following beaver neighbours (or their signs) and circle any that you find:

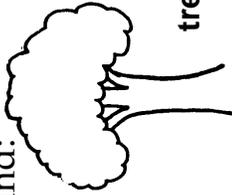
flowers



coyote tracks



trees

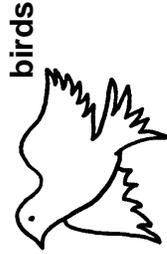


deer tracks



bugs

snowshoe hare tracks



birds

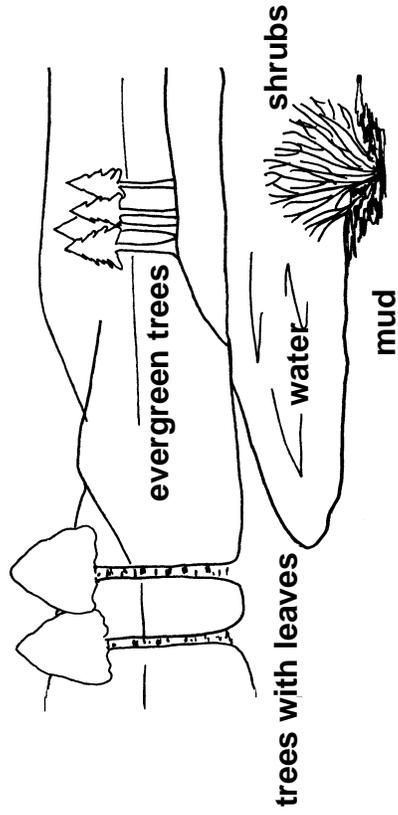
Have students compare how their own homes are built to how beavers build their homes. Encourage the students to look around the area carefully and identify some of the materials the beavers might use. Have them use the booklet diagrams to identify the materials. Beavers usually make their homes from the branches of deciduous trees and shrubs packed together with mud.

Shelter

We all need a place to live. It protects us from the wind, rain, and snow. What do you live in?

Beavers build their own homes. There is a special name for a beaver home. Write it in the space below.

What do beavers build their lodges and dams out of? Circle those things that you think a beaver could use to build its home.



Have the students make fingerprints or rubbings by placing this page over the bark or leaf of a kind of tree that a beaver might eat (aspen or willow) and rubbing their crayons on the paper to create a rubbing of a natural texture.

~~~

## Neighbourhood Fingerprints

Find a tree similar to one that has been eaten by a beaver. Use the space below to make a rubbing of the tree's bark or one of its leaves.

*After reading the information out loud, encourage students to think of ways that they use water. Use the booklet diagrams to help identify the kind of water body used by the beavers.*

~~~

Water

Water is important to people and to beavers. What do we need water for?

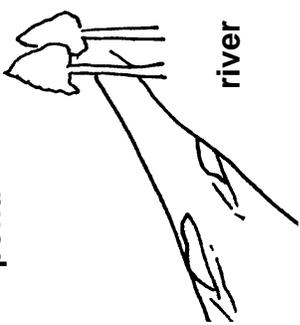
Beavers work, travel, and play in the water. They always build their homes in or near water. Which type of water do the beavers in this area use? Circle the right answer.



creek



pond



river

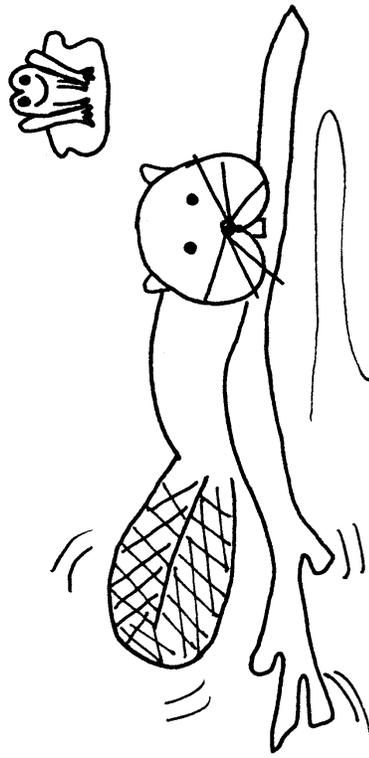
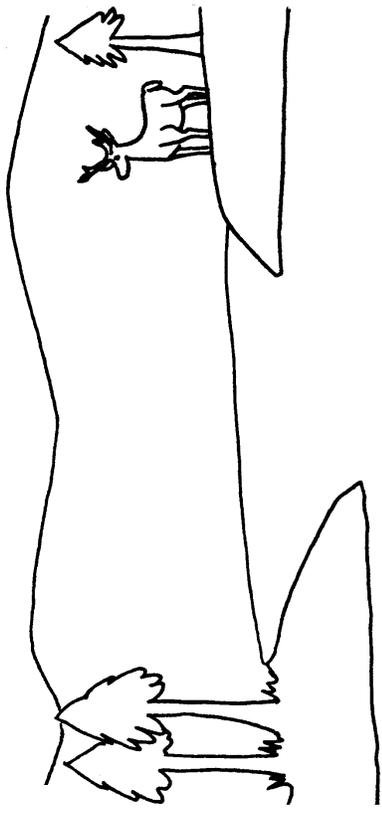
In this activity, students draw something they like about the water where the beavers live. They may choose to draw something they find living in or near the water or they may choose to draw the reflections in the water.

~~~

In the space below, draw a picture of the thing you like best about the water where the beaver lives.

# WELCOME TO MY HOME

## STUDENT BOOKLET



MY NAME IS: \_\_\_\_\_

## **Basic Needs**

There are four basic things that all living things need:

1. Food
2. Water
3. Shelter
4. Space

People need these 4 things and so does the beaver.

You will be looking in this area to find how the beaver meets its needs.

Turn the page for more...

# I Spy... Beaver Clues!!!

Beavers leave many clues that tell you that they live in the area. Circle the beaver clues you have seen.



# Food

The beaver needs food just like you. Write the names of some of the foods you eat in the space below.

---

---

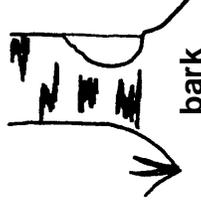
Beavers eat twigs, leaves, soft underbark and pond plants.

Circle any beaver foods you can find:

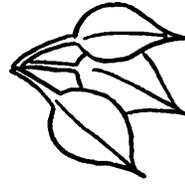
## BEAVER FOODS



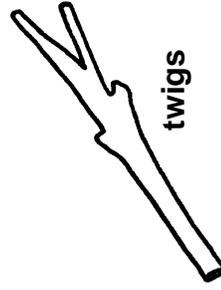
cattail stalks



bark



leaves



twigs

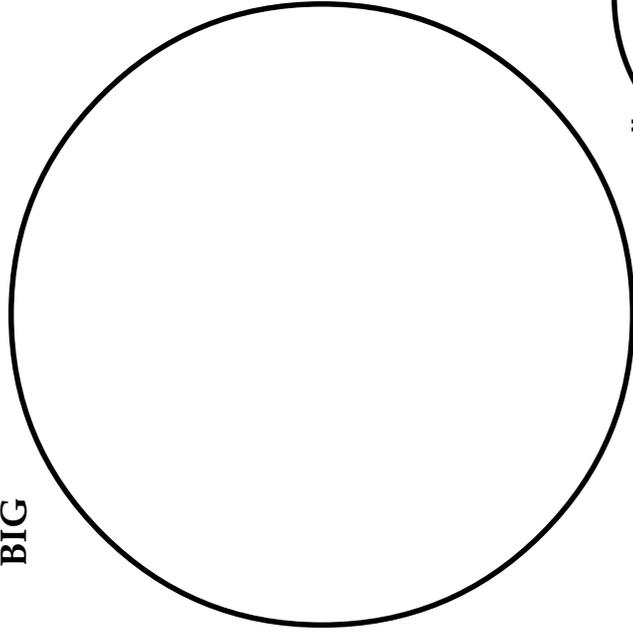
## Neighbourhood Fingerprints

Find a tree similar to one that has been eaten by a beaver. Use the space below to make a rubbing of the tree's bark or one of its leaves.

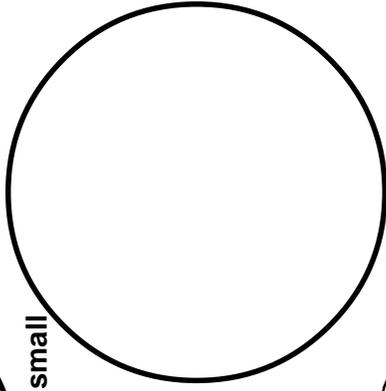
## Beaver's Neighbourhood

Look at the beaver's neighbourhood a little more closely. Using your snoop tube and string, look for big and small neighbours who live here. They can be plants, insects, or animals. Draw them in the circles below.

**BIG**



**small**



# Space

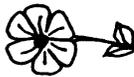
We all need space around us to live. Where is your own special space?

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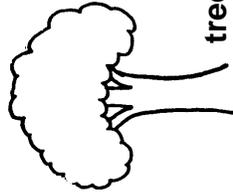
In towns and cities our homes are in a space which we call neighbourhoods. Beavers share space with neighbours such as plants and animals.

Look for the following beaver neighbours (or their signs) and circle any that you find:

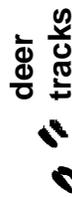
flowers



coyote tracks



trees



deer tracks



birds



bugs

snowshoe hare tracks

# Water

Water is important to people and to beavers. What do we need water for?

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Beavers work, travel, and play in the water. They always build their homes in or near water.

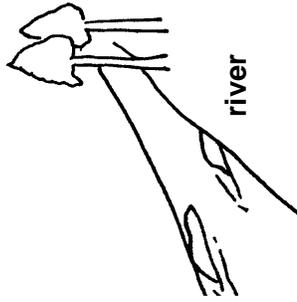
Which type of water do the beavers in this area use? Circle the answer below.



pond



creek



river

In the space below, draw a picture of the thing you like best about the water where the beaver lives.

# Shelter

We all need a place to live. It protects us from the wind, rain, and snow. What do you live in?

Beavers build their own homes. There is a special name for a beaver home. Write it in the space below.

What do beavers build their lodges and dams out of? Circle those things that you think a beaver could use to build its home.

