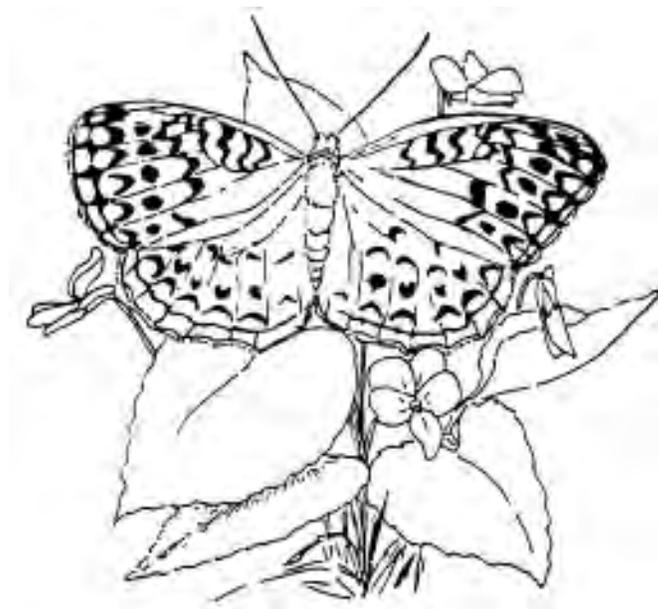




**Fish Creek Provincial Park**

# ENCHANTED SPRING

A teacher conducted field study science program for  
Grade 1 students.



*Fish Creek Environmental Learning Centre*

(403) 297-7827

[www.fish-creek.org](http://www.fish-creek.org)



**Alberta**

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# ENCHANTED SPRING

A teacher conducted field study program for Grade 1.

This curriculum connected field study was developed to support the Grade 1 topic: Seasonal Changes and the mandates of Alberta Parks Service.

Developed by:

Fish Creek Environmental Learning Centre  
Fish Creek Provincial Park  
13931 Woodpath Road S.W.  
Calgary, Alberta  
T2W 5R6

March 2008





## 1.0 INTRODUCTION

Welcome to **ENCHANTED SPRING** a teacher-conducted science program for grade one students.

This is a curriculum connected full day field study with multidisciplinary preparatory and post activity support. The intent is to offer a natural world experience for students that reflects the outdoor field study components of Topic B: Seasonal Changes and Topic D: Senses from the Grade 1 Alberta Elementary Science Curriculum and the mandates of Alberta Parks Service:

- preservation
- heritage appreciation
- outdoor recreation
- heritage tourism

Fish Creek Provincial Park, Canada's largest urban provincial park, has a strong mandate within its management plan to support and foster environmental education. It states:

*"Alberta's Fish Creek Provincial Park is an evolving landscape in an urban setting where the needs of wildlife and natural systems are balanced with outdoor leisure and environmental education."*





## 1.1 PROGRAM OUTLINE

Welcome to **Enchanted Spring**, a teacher conducted program utilizing a sensory awareness approach to explore the natural world and discover what happens as the season changes from winter to spring.

The goal of this program is provide students with the unique opportunity to go on two experiential journeys that provide guided activities to explore seasonal changes in the environment from a multi-sensory perspective.

**Enchanted Spring** is a teacher and parent led sequential program that consists of three components. These are school based preparatory activities, the field study experience and follow-up activities completed back at school.

Descriptions of the preparatory activities are included in this teacher package. Completing these activities helps prepare the students to get the most out of their field study experience while creating connections between in-class and out of class educational activities.

This is followed by a full day field study done in the natural world. The field study program is divided into two walks with a lunchbreak between them. The activities vary in degree of complexity. Most of the activities are graphic based. Writing or advanced reading skills are not required.

However, teachers are encouraged to challenge their students to complete as much of the program, including reading and writing, as their skills and time allow.

To conclude the process, there are follow-up activities to be done back at school that are intended to reflect on and apply what the students have learned.

This program package contains all the information required to organize and conduct all facets of this educational experience. It includes checklists for helping arrange and organize your field study, a preparatory and post test, descriptions of activities, lists of the materials to conduct the activities and photocopy masters of a Student Journal that is used to facilitate the experience. This Student Journal contains a page to complement each activity. To limit dependency on reading and writing skills, the Student Journal is primarily graphic but contains opportunities for students to practise their reading and writing skills. Use of the Student Journal is optional.

This program was developed by the Environmental Education staff at Fish Creek Provincial Park in consultation with formal and community educators.



## 1.2 PROGRAM OBJECTIVES AND CURRICULUM FIT

These activities have been designed to meet specific curriculum requirements for Grade 1 in Alberta’s Elementary Science Curriculum. The intent is to provide a series of school based and natural world based activities that build on each other and are directly connected to on-going classroom events and experiences in the students’ personal world of interaction. This directed sequence of educational opportunities helps make the entire experience more meaningful for students, teachers and parent volunteers.

This field study program, and the school based preparatory and post activities that complement it, have been designed to address specific learner expectations from **Topic B: Seasonal Changes** and **Topic D: Senses**, (Grade 1) in the Alberta Elementary Science Program of Studies:

### Topic B: Seasonal Changes

#### *SLE 1.*

Describe the regular and predictable cycle of seasonal changes:

- changes in sunlight
- changes in weather

#### *SLE 2.*

Identify and describe examples of plant and animal changes that occur on a seasonal basis:

- changes in form and appearance
- changes in location of living things

- changes in activity; e.g., students should recognize that many living things go into a dormant period during winter and survive under a blanket of snow as a seed, egg or hibernating animal.
- production of young on a seasonal basis

#### *SLE 3.*

Identify human preparations for seasonal changes and identify activities that are done on a seasonal basis.

### Topic D: Senses

#### *SLE 3.*

Apply particular senses to identify and describe objects or materials provided and to describe living things and environments. Students meeting this expectation will be able to describe characteristics such as colour, shape, size, texture, smell and sound.

#### *SLE 5.*

Recognize that other living things have senses and identify ways that various animals use their senses.

The program is also designed to reflect the mandates of Alberta Parks Service:

- preservation
- heritage appreciation
- outdoor recreation
- heritage tourism



## 1.3 CURRICULUM CONNECTIONS

This program is primarily a science based field study, but there are many other curriculum connections with the Grade 1 CORE program of studies.

### *SOCIAL STUDIES*

- focus on the concept of respect for ourselves, people around us and the environment
  - locating, organizing and interpreting information
  - geography and mapping skills
  - enhances communication skills
  - encourages participation in their learning
  - recognize that learning happens in more places than just school
- respond to how well others present ideas and information
  - relate personal experience to their learning
  - retell a personal experience to a familiar audience
  - make requests for information and ask questions

### *MATH*

- identify, name and describe specific shapes as circles, triangles, rectangles
- compare, sort and classify 2-D shapes
- construct a pictograph using one-on-one correspondence

### *PHYSICAL EDUCATION*

### *LANGUAGE ARTS*

- encourage reading and writing behaviours
  - contribute to the development of question strategies for clarifying learning
  - experiment with pictures, diagrams, symbols, letters and word phrases to represent ideas
- experience success and enjoyment through participation in outdoor activities
  - understand the use of clothing and footwear appropriate to outdoor activities
  - understand safety principles as they apply to outdoor pursuits
  - cooperatively work in groups



## 2.0 ENVIRONMENTAL EDUCATION OPPORTUNITIES IN FISH CREEK PROVINCIAL PARK

Fish Creek Provincial Park stretches from the T'suu Tina Reserve at 37 Street in the west to the Bow River in the east. The Park is 20 km long, but only 1-1 1/2 km wide, as it encompasses mainly the creek and surrounding valley.

The Fish Creek Environmental Learning Centre, located at the west end of the Park off 37 Street S.W., offers five indoor classrooms, an outdoor picnic area and access to an extensive variety of natural ecosystems: an old spruce forest, grasslands, riverine, creek and pond wetlands and disturbed (urban) areas.

### 2.1 FISH CREEK ENVIRONMENTAL LEARNING CENTRE

The Fish Creek Environmental Learning Centre offers you the following facilities and services:

1. Each teacher will be given a classroom to use as a home base for the day's activities.
2. Some equipment for the day's activities will be available at the Park. It is your responsibility to count all equipment and return it at the end of the day. Lost or broken equipment must be paid for or replaced.
3. Washrooms and a water fountain are located in the building. There are no vending machines or microwave ovens available. Hot water is available. Please make hot drinks in cups, not the urn.
4. A short orientation (about 20 minutes) will be provided, when your group arrives, to welcome the students and introduce them to the Park, its rules, the program for the day and what the students might see.
5. Indoor activities focusing on key concepts are available for use during the lunch break or inclement weather. No teacher preparation is required. All activities have written instructions and the correct answers where required.





## 2.2 LUNCH BREAK PROCEDURES

Your class may eat inside the facility. While the students are eating, please explain to the class our expectations regarding disposal of “lunch time leftovers”.

- empty pop or juice can/bottles and drink boxes go into the special container labeled **“BOTTLES AND CANS”**. We send these to recycling depots. Do the students know what recycling is, how it conserves resources and how it helps the environment?
- food garbage goes into the container labeled **“COMPOST”**. This is fed to worms in a vermiculture program in the Park.
- factory produced wrappers go into the **“NON-RECYCLABLES”** containers to be sent to the landfill site. These items are usually a mixture of plastic, paper or foil which means they cannot be put with other recyclables.
- paper and plastic lunch bags go back home to be re-used.
- plastic sandwich bags, food wrap or tin foil also goes home to be reused. What must be done to it before it is stored? Why does it need to be washed?

There are several picnic tables and a large

## 2.3 OUTDOOR LUNCH OPPORTUNITIES

firepit behind the Fish Creek Environmental Learning Centre. Reservations are required to use this outdoor cooking fire pit. Call 297-7827 to reserve.

When **using a fire pit area be sure to:**

- provide your own roasting sticks and firewood. **DO NOT USE BRANCHES OR DEADFALL IN THE PARK.**
- have a bucket of water nearby **BEFORE** the fire is lit.
- **Do not feed or disturb wildlife.**
- remind students to clean up the fire pit area of garbage and left over food.
- check the fire is out before you leave the area.





### 3.0 TEACHER INSTRUCTIONS AND CHECKLISTS FOR PLANNING YOUR FIELD STUDY DAY IN THE PARK

Give every driver – **INCLUDING THE BUS DRIVER** - a copy of the route map (last stapled page of this package). Make sure they know you are coming to **the west end of the Park, near Woodbine!!**

#### PREPARE YOURSELF

- Read the teacher package thoroughly: phone 297-7827 if you have any questions.
- Select the activities to fit your lesson plans, students' skill levels and time you are at the Park.

#### PREPARE THE STUDENTS

- Review the Park rules (explained on page 10).
- Discuss the field trip, using the points listed on page 11: emphasis the following:
  - Dress in layers: it will be cooler at the Park than at your school.
  - There is nowhere to buy anything here so bring plenty to eat and drink.
- Complete some preparatory activities: either the ones in the next section of this package or some of your own.

#### PREPARE THE ADULTS

- Recommended ratio is 1 adult per 5 students: minimum is 3 adults per class including teacher.
- Review the Park rules (explained on page 10).
- Emphasis the following:
  - Dress in layers: it will be cooler at the Park than at your school.
  - There is nowhere to buy anything here, including **COFFEE**.
- The adults' role is to lead the activities with the same small group of students all day. Photocopy the activity instructions (make extras) and send them to the volunteers several days before the field study so they can become familiar with the activities.
- If you want your students to complete the Student Journals at school, ask your volunteers to make notes on the activity instruction pages about the students' discoveries to assist the students back at school with their Journal work. Collect these at the end of your Park visit.

#### BRING

- A cheque made payable to **Minister of Finance** for \$3.00 per student (no charge for adults).
- 1 index card (see page 20) and 1 plastic bag per student (see page 25).
- Trail map for each adult (long map wrapped around teacher package).
- Student booklets and crayons if you want the students to work on their Student Journals at the Park.



### 3.1 PLANNING YOUR ITINERARY FOR THE FIELD STUDY DAY

Please consider travel time from your school to and from the Park. If you are planning on modifying your program, select your activities and timetable the day accordingly.

**TIME      ACTIVITY**

- \_\_\_\_\_ Depart from school.
- \_\_\_\_\_ Arrive at Fish Creek Provincial Park and settle into classroom.
- \_\_\_\_\_ Participate in a class orientation meeting with a Park staff person.
- \_\_\_\_\_ Teacher and volunteer led morning program activities.

Write down the activities you are doing and what equipment and materials you need for each if you are modifying your day.

**ACTIVITY                      EQUIPMENT / MATERIALS**

_____	_____
_____	_____
_____	_____

- \_\_\_\_\_ Lunch, either outside, weather permitting, or in your classroom.
- \_\_\_\_\_ Afternoon program.

Write down the activities you are doing and what equipment and materials you need for each if you are modifying your day.

**ACTIVITY                      EQUIPMENT / MATERIALS**

_____	_____
_____	_____
_____	_____

- \_\_\_\_\_ Gather together, inventory and return any equipment borrowed from the Centre. Notify Park staff that you are ready to have it checked.
- \_\_\_\_\_ Gather personal belongings together and travel back to school.
- \_\_\_\_\_ Arrive back at school.

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## 4.0 CLASS DISCUSSION ABOUT THE FIELD STUDY

### **Alberta's Parks and Protected Areas**

Alberta's parks and protected areas belong to all Albertans and contain many different natural landscapes that are home to numerous plant and animal species. The province's network of parks and protected areas covers roughly 27,500 square kilometres and includes more than 500 sites. This network helps to ensure that Alberta's biodiversity is preserved for future generations.

Our vision: *"Alberta's parks and protected areas preserve, in perpetuity, landscapes, natural features and processes representative of the environmental diversity of the province."*

Provincial parks exist to protect provincially significant natural, historical and cultural features. They contain a range of outdoor recreation, interpretive and environmental education opportunities, facilities and services so that visitors can explore, learn, understand and appreciate the natural world.

Alberta's Parks are protected by the Alberta Parks Act, and it is through this legislation that these landscapes have specific and important guidelines to help keep them healthy and vibrant.

The following is a list of rules that reflect the Park's mandate to protect and preserve the natural environment.

### **Do not feed or disturb wildlife**

Feeding wildlife is not necessary and is potentially dangerous. The Park's ecosystem provides all the food and habitat wildlife require for their basic needs. Human food does not meet their nutritional requirements and can cause some species to become dependent on handouts. Quietly observe all wildlife from a comfortable distance.

### **Leave only footprints**

Take only pictures. Everything in the Park - living and non-living - is protected to help preserve the complex living system that thrives in Fish Creek Provincial Park. Students are welcome to share their discoveries, but must remember to leave everything as they found it. Treat plants, insects and trees gently to avoid unnecessary injury or damage.

### **Pets on a leash**

There are no off-leash areas in any of Alberta's provincial parks. This protects Park wildlife as well as domestic pets. Please do not bring pets on the field study. They can be distractions for students and pose a health risk for those allergic to pets. Guide Dogs and Assisted-Living Dogs are the only animals permitted in Park buildings.

### **Pitch in**

Litter should be placed in the rubbish bins provided or in a pocket. Human litter is hazardous to Park plants and wildlife.



### Fire in its place

Use only designated fire pits. Open fires are a threat to public safety and Park habitats. The burning of Park vegetation is not permitted.

### Discussion Checklist

Here is a checklist of things to discuss at school prior to the field study day:

— Discuss the fact that Fish Creek Provincial Park is not a city park. It is one of many Alberta parks and protected areas.

— Discuss the purpose of provincial parks and protected areas. Have the class make a list of behaviours on the field study that would show respect for living things and a commitment to their care. Possibilities include:

- leave ant hills, nests and rotting logs alone and intact. They are animal homes.
- walk carefully around bushes and trees, not through the middle of them.
- stay on the trails. When leaving the trails to complete program activities walk carefully, watching each step to avoid crushing small plants and trees.

— Discuss the Park rules. These rules reflect the provincial parks mandate to protect and preserve our natural environment.

— Discuss outdoor safety. Students need to:

- stay where an adult can see them at all times
- walk, do not run.
- keep feet on the ground: no climbing.
- leaves dead branches on the ground: they do not make safe walking sticks.

— Discuss behavioural expectations. Explain that the field study will be another school day, just at a different place. All the school rules apply. Remember that other schools will probably be there trying to also work.

— Discuss the appropriate clothing required for the season and the day's activities. Mornings in the shady forest will be cool. Trails may be muddy and wet. Several layers of clothing, including a water resistant layer and a hat or hood will provide the most comfort. Boots provide more protection than sandals and canvas runners. However, boots with heavy lug soles are damaging to trails. They should only be worn when necessary, and replaced with sturdy runners or shoes when not required. Warm weather means sunhats, sunscreen and insect repellent will also be required.



## 5.0 PREPARATORY FIELD STUDY ACTIVITIES

The preparatory activities described here will introduce the field study day to your students and will enable them to practise the skills to be used during the field study day. If possible, invite the parent volunteers into the classroom to also experience these activities.

Feel free to use your own activities and the ones described in this orientation package. Within the activities you select and present to your students be sure to:

Complete the preparatory activities described in this package, as this knowledge will be required to complete the field study activities.

Select activities in addition to the ones described in this package that reflect each specific learner outcome from the curriculum that will be addressed on the field study day. *(See Program Objectives and Curriculum Fit).*

Consider other curriculum areas and explore how all subject areas can be connected to your field study day.

Conduct some activities outside to get the students familiar with outdoor classroom management strategies and thinking of school in an outdoor setting.

### 5.1 HUMAN SENSES

Discuss senses singly and combined. Have the class name the senses. Explore different animals and how the senses are used by them. Develop activities that require the students to use one sense more than another to interact with their environment.

#### Sight:

Blindfold the class for 10 minutes and reflect on how they felt and how they used their other senses to compensate for the loss of sight.

#### Sound:

Experiment with listening to a sound and changing the position of your hands around your ears.

#### Touch:

Ask the students to describe what something feels like by looking at it. Then have the students touch the object to see how their visual perception compares to how it actually feels. Try to select items the students won't have seen before or disguise the items so they don't know what they are.

Post pictures of various animals, including people, and indicate the location of their various senses using arrows and pictures.



## 5.2 ODOUR ORDEAL

Create an “Odour Ordeal” by putting samples of penetrating smells into small containers (such as reused film canisters) that have small holes punched in the lids. Use odours such as onion, garlic, mint, vanilla or ground up leaves. Have the students smell the container lids. Ask them the following questions:

- Do you like or dislike the smell?
- What do you like or dislike about the smell?
- What do you think is causing the smell?

## 5.3 FEELY BAGS

“Feely Bags” is an activity utilizing the sense of touch. Distribute one small bag to each student. Ask each student to select one object and place it in their feely bag. Then either individually or in small groups, ask the students to exchange bags, reach into the new bag and feel the object. Ask the students the following questions:

- Can you describe how it feels?
- What is special or different about how it feels?
- What do you think the item is?

Students can peek into the bag, without removing the item, to see if their guess was correct. They would then pass the bag onto another student.

## 5.4 WINDOW FIELD TRIP

Go on a “Window Field Trip” to develop students’ observation and inference skills. On a sheet of large drawing paper, ask the students to draw what they see out their window. This could be done at home or at school. Guide their observations and inferences with some questions:

- Is it hot or cold out today?
- Where is the sun?
- Are there any shadows?
- Is it windy? Can you tell from which direction the wind is blowing?
- Are there clouds in the sky?
- Do the shapes of the clouds remind you of anything?
- Can you see the moon?
- Can you see any buildings?
- Can you see any animals?

As a class, discuss their field trip to the window and share their observations and inferences. Repeat the process a week later and compare the results. Discuss why some things have changed and others did not.





## 5.5 GUESS WHAT'S NEW

Play “Guess What’s New” in the classroom several weeks prior to your field study to develop students’ observation skills. Add items to the classroom that support what you are teaching. Challenge the students to discover these new items or which aspects of the classroom have been changed.

## 5.6 WHAT'S THAT SOUND?

To play “What’s That Sound?” ask the students to close their eyes and try to identify unique sounds that you produce for them. Sounds could include: stapling paper, tearing paper, crinkling plastic or tin foil, shaking paper clips, plucking a stretched elastic or blowing into a bottle. Move around the classroom to present these sounds. Can the students point to identify the direction the sounds are coming from? Can they identify the source of each sound?

## 5.7 ENCHANTED SPRING

1. The essential focus of this program is the concept of change, particularly as it relates to the cycle of seasons. On a bulletin board display define change for the students using key words such as different, switch, replace, shift and exchange.

2. Make a collage of things that have changed. Examples could include growth from baby to adult (person or animal), winter tree bud into a fully opened leaf, a series of photos depicting the sun either rising or setting.
3. “Do I Change?” is a preparatory activity where the students gather personal data such as height, weight, length or colour of hair, shoe size and favourite food when they were a baby. It will be necessary for them to gather information from their parents on their baby statistics. Data can be recorded on page 2 of their student journal if you are using those sheets. When completing the page, ask the students to compare their baby data and their data presently. Discuss how they have all changed. Have them draw themselves in the pair of sneakers in the Today’s Date box. Compare the baby image to their drawings.

## 5.8 PREPARATORY AND POST TEST

Develop a short quiz that the students would complete before and after the field study to enable you to accurately assess the learning achieved on this field study. Use the following sample quiz, primarily graphic based, or develop your own.



## ENCHANTED SPRING QUIZ

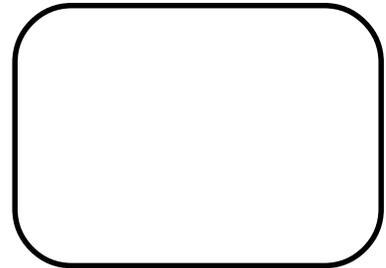
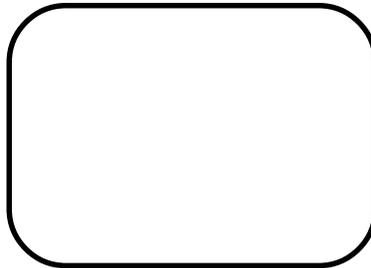
\_\_\_\_\_

Name

\_\_\_\_\_

Date

1. Colour each box pictured below a different primary colour.



2. Finish each sentence by naming the colour.

- a. Red and yellow make \_\_\_\_\_.
- b. Red and blue make \_\_\_\_\_.
- c. Blue and yellow make \_\_\_\_\_.

3. Draw one object you touched during your visit to the Park. Beside your picture print two words that describe how the object felt.

\_\_\_\_\_

4. Draw a line from the body part picture to the sense that matches it.



a. sense of smell



b. sense of taste



c. sense of sight



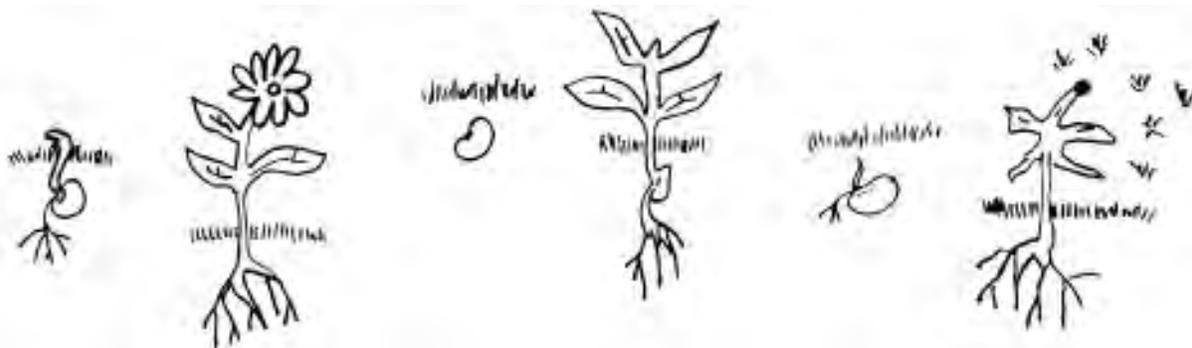
d. sense of hearing



e. sense of touch



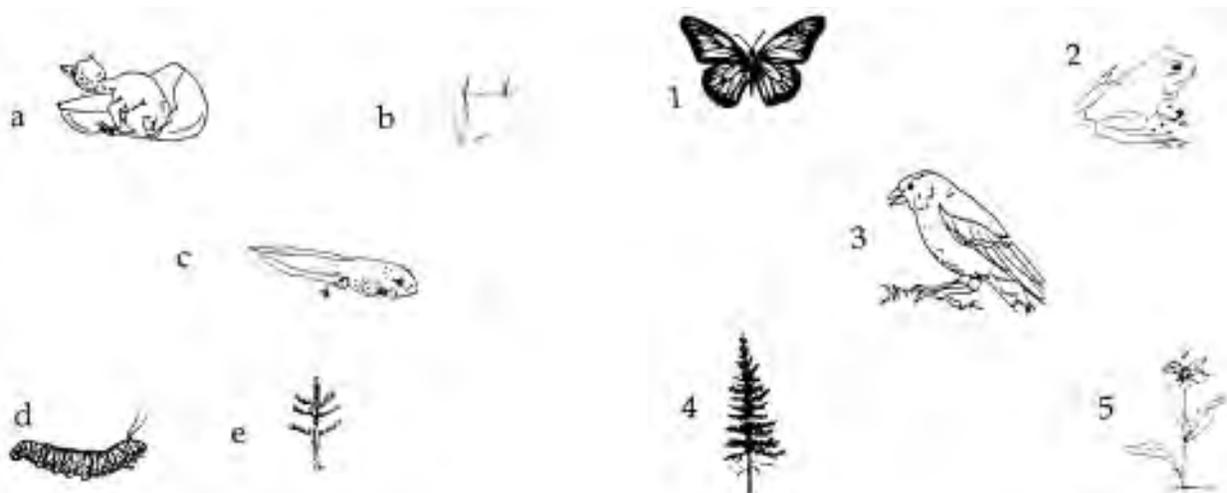
5. Below are mixed up pictures of a flower growing. Put them in the right order by placing a number 1 beside the first thing that happens, a number 2 beside the next thing and so on until you have a number 6 beside the picture of the flower going to seed.



6. Below are pictures of changes that happen in nature. Print an S beside the ones that happen in spring and an F beside the ones that happen in fall.



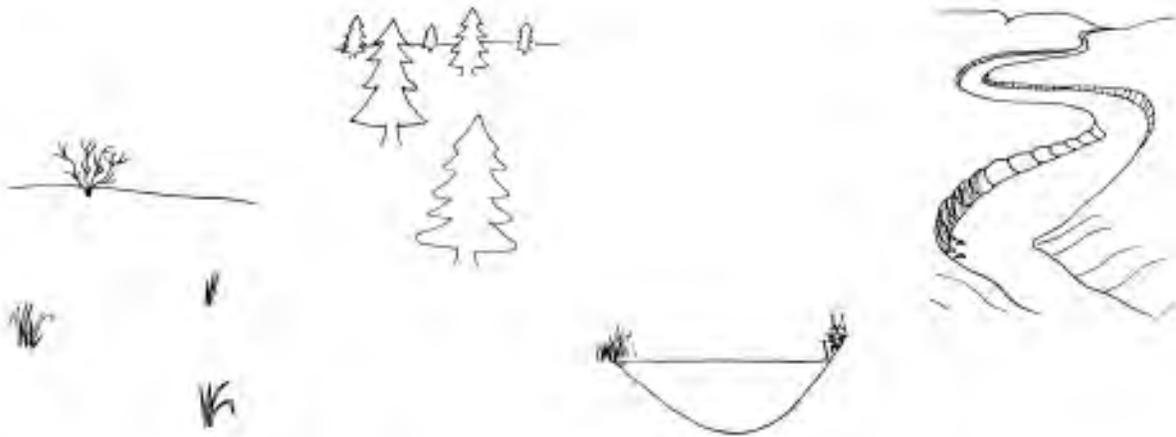
7. Draw a line from each picture of the baby plant or animal to the picture of what the baby will look like when it grows up.



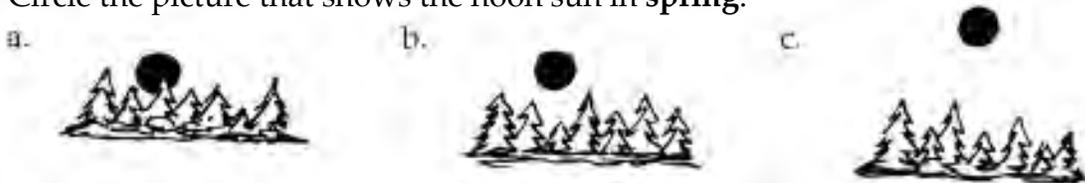
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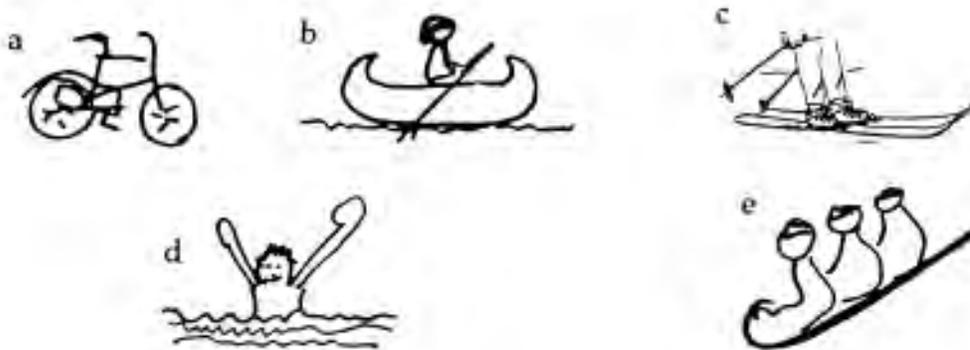
8. Add two things you discovered at the Park to each of the pictures below.



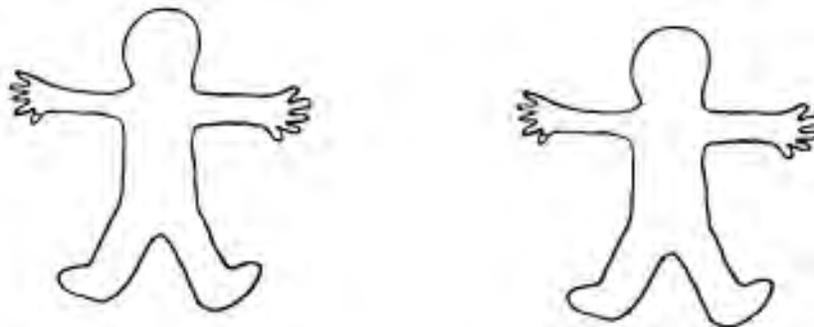
9. These pictures show where the sun is at noon (lunchtime) during different seasons. Circle the picture that shows the noon sun in **spring**.



10. Circle the pictures of activities that you can do outside now that it is spring.



11. Pictured below are two people. On the first one, draw the clothes needed to play outside in winter. On the second one draw the clothes needed to play outside in spring.





## ENCHANTED SPRING QUIZ ANSWERS

1. Boxes should be red, yellow and blue.
2. a. orange    b. purple    c. green
3. varies
4. 1-d, 2-b, 3-a, 4-e, 5-c
5. 3, 5, 1, 4, 2, 6
6. spring - 2, 3, 5, 6    fall - 1, 4, 7
7. a-3, b-5, c-2, d-1, e-4
8. varies
9. b
10. a, b, d, f
11. winter - warm hat, scarf, heavy coat, long pants, boots, mittens

spring - cap, lighter jacket, long pants, rain boots or runners

## 5.9 STUDENT JOURNALS

The Student Journal is the tool the students, teachers and parent volunteers will use throughout the day to record and reflect on what they are learning through their multi-sensory exploration of the natural world.

### MAKING THE STUDENT JOURNALS

Once you have selected the activities you will complete during the field study, create a master copy of the journal by photocopying the appropriate pages from among those at the end of this package.

If you are doing a full day field study as described in this package, then you simply need to photocopy the pages in the order they appear in this package. Fold them in half and staple down the centre fold. Make one copy per student and per adult volunteer. You may also want to make a few extras to replace those that get mislaid.

Introduce the Student Journals to your class. Read through it to help them understand what will happen on the field study. Each student can personalize their own journal by printing their name on the cover and decorating it.

ENCHANTED SPRING



NAME \_\_\_\_\_



## 6.0 FIELD STUDY ACTIVITY DESCRIPTIONS: MORNING

### 6.1 WALK ONE: SENSORY SNOOPS

*Objective: The first walk focuses on the students using their senses to explore the natural world. These activities are done first during the field study because this practise at using the senses will enhance the students' success with the afternoon seasonal exploration activities. The morning walk consists of 5 activities:*

- |                  |                 |
|------------------|-----------------|
| 1. Colour Search | 20 - 25 minutes |
| 2. Sound Map     | 15 - 20 minutes |
| 3. Smells        | 10 - 15 minutes |
| 4. 1/2 Touches   | 15 - 20 minutes |
| 5. Name Game     | 20 - 25 minutes |

#### 6.1.1 Colour Search

*Objective: Students will identify colours in a variety of natural objects; compare, contrast and order those colours and describe changes that result when primary colours are mixed.*

**Time:** 20 -25 minutes

**Equipment provided by the Centre:**

- 1 colour sample card per group
- 1 acetate colour sample set per group

**Equipment provided by the school:**

- student journals, pencils, clipboards

**Setting:** anywhere

#### *Activity description:*

Gather your group of students into a circle around you. Ask them to name the three primary colours ( red, yellow, blue). Show them the acetate ( plastic ) set of colour samples. Ask the students to predict what will happen when you place the red sample over the blue one. (It will appear to be purple). Put the colour samples together to show the students how the colour changes when primary colours are mixed. Repeat this procedure using red and yellow to produce orange and blue and yellow to produce green.

Give each pair of students one colour sample card. Ask them to find one natural object that matches each of the primary colours. Students should **take the colour card to the object**, not pick the object and take it to the card. Explain that the match does not have to be exact; any shade of the colour will be fine.

At the bottom of each sample card are squares showing three different shades of a secondary colour that results when two of the primary colours are mixed. Ask the students to find an object that matches each of the shades. Again, the match does not have to be exact.

On Journal page 3, have the students draw the 3 objects they found that were varying shades of the secondary colour. Students should draw the objects in order, starting with the lightest shade. Pictures can be coloured later.



## 6.1.2 Sound Map\*

*Objective: Students will apply particular senses in describing living things and environments.*

*Time:* 15 - 20 minutes

*Equipment provided by the Centre:* none

*Equipment provided by the school:*

1 index card per student  
student journals, pencils, clipboards

*Setting:*

edge, where forest meets grasslands

*Activity Description:*

This is a sound and hearing activity. Find a spot at the edge of forest and grasslands. There are more sounds at edges because there is more wildlife where trees meet an open area. Have the students sit down.

Begin by giving each student a 4 x 6 index card. (Depending on skills, you may want the students to complete this activity as a group project.) Have them mark an X in the centre of the card. Tell the students the card is a map and that the X shows where they are sitting. When they hear a sound, they should make a mark on the card that aptly describes the sound. The marked location should indicate as accurately as possible the direction and distance of the sound. The marks can be interpretive not literal: the students do not have to draw pictures of plants and animals, just a few lines to represent that sound - for example, two wavy lines indicating wind or a musical note indicating a songbird.

In other words, they should spend little time drawing and most of the time listening.

After the students have drawn their maps and shared them, ask the students:

- how many different sounds did they hear?
- which sounds did they like best? Why?
- which sounds have they never heard before?
- do they know what made the sounds?

Instead of answering aloud, you can ask them to circle the sounds they'd never heard before, draw one line under sounds they liked best and draw two lines under the sounds they liked least.

To complete journal page 4, have the students draw in the big ear sources of the sounds they heard.

**\*Used with permission from "Sharing The Joy Of Nature" by Joseph Cornell. Dawn Publications. 1989.**



### 6.1.3 Smells

*Objective: Students will apply particular senses in describing living things and environments.*

*Time:* 10 - 15 minutes

*Equipment provided by the Centre:* none

*Equipment provided by the school:*  
student journals, pencils, clipboards

*Setting:* grasslands and forest

#### *Activity description:*

This activity is an adventure into the world of odours by sniffing and comparing. How many different smells does nature have? Do any of the flowers have an odour? Have the students smell the objects listed below and decide if the items in each pair smell the same or different.

- dead grass and living grass
- cone and needles from the evergreen trees
- bark and sap of evergreen trees
- bark of evergreen and deciduous trees
- buds on different bushes
- damp and dry soil

What else can the students find to smell? Which smell do they like the best? Can they describe the smell? Was there an odour they didn't like? Can they explain why they didn't like it?

To complete journal page 5, have the students print the letter "S" in front of each pair of objects that smelled the same; the letter "D" in front of the paired objects different. Students can also draw a circle around the objects that they liked the smell of.

### 6.1.4 1/2 Dozen Touches

*Objective: Students will apply particular senses in describing living things and environments.*

*Time:* 15 - 20 minutes

*Equipment provided by the Centre:*

1 touch carton per 2 students

*Equipment provided by the school:*

student journals, pencils, clipboards

*Setting:* anywhere

#### *Activity description:*

Select 1 word pair from the list below, for each pair of students in your group.

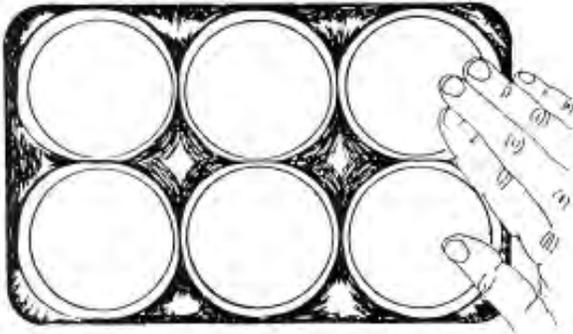
rough/smooth    warm/cool    sharp/dull

soft/hard        dry/wet        heavy/light

Give each pair of students 1 carton and whisper to them their adjective word pair. Tell the students "each pair of students has two secret words that describe opposite ways an object might feel when you touch it. Find 3 objects that feel like one of the secret words and place the objects in the cups down one side of the carton. Then find 3 objects that feel like the second word and place them in the cups down the other side of the carton. **DO NOT PICK ANYTHING THAT IS LIVING. Only collect loose objects lying on the ground.**"



### 6.1.5 Name Game



*Objective: Students will practise oral and written skills to communicate ideas.*

*Time: 20 minutes*

*Equipment provided by the Centre: none*

*Equipment provided by the school:  
student journals, pencils, clipboards*

*Setting: anywhere*

#### *Activity description:*

This is an effective language game which encourages creative thinking and use of the senses. Work with the students in your group to develop a list compiled of four natural things. Then have the students, as a group, use descriptive words to rename the objects. The new name of each object should incorporate the use of a different sense. For example, needle trees, smelly buds, curly plant, whispering wildness. When your group's list is complete, trade with another group and try to find the objects from their new names.

Journal page 7 has space that encourages the students to draw the renamed objects. Beside each of their drawings, have the students draw the sense they used to rename the object. For example, draw a hand beside a picture of the needle, draw a nose beside a picture of a smelly bud and so on.

When the touch cartons are full of contrasting touches, pass one pair's carton to another pair of students. Have the new pair of students touch all 6 objects and then try to guess what the secret words are.

Discuss their sense of touch. "What features did the touches have that allowed you to guess the words?" At the end of the discussion, have each pair of students return all their objects back where they found them

To complete journal page 6, have the students draw the natural objects they put into their special touch cartons. Print their secret words on the picture of the hand.



## 7.0 LUNCH BREAK ACTIVITIES

### HAWKS AND GROUND SQUIRRELS

Lunch break is an opportune time to have the students release some energy by playing an active game. Move your class outside to the lawn areas around the Centre. Ask your adult volunteers to check the lawn for any large holes that may cause the students to trip. If the adults find any, ask them to stand over the hole, forcing students to play around it.

Read the following to the students. "The arrival of spring ends the winter hibernation of ground squirrels, often referred to as gophers. (Actually, gophers are a different species of rodents.) The ground squirrels quickly establish their territories, start raising their young and eat continuously. A winter without food has left them with a voracious appetite.

While busy with all of these activities, the ground squirrels must also watch for predators. That circling hawk could mean instant death."

Have some students stand in groups of three, holding hands to form a small circle. These circles are the burrows. Inside each burrow is a student, who is the ground squirrel. Two or three extra ground squirrels start the game with no burrow. One student, representing the hawk, starts the game by chasing the homeless ground squirrels. They may duck into any burrow, forcing the resident ground squirrel out. When the hawk catches a ground squirrel, the hawk becomes a ground squirrel and the captured ground squirrel joins a circle representing a burrow. One person from that circle becomes the hawk.





## 8.0 FIELD STUDY ACTIVITY DESCRIPTIONS: AFTERNOON

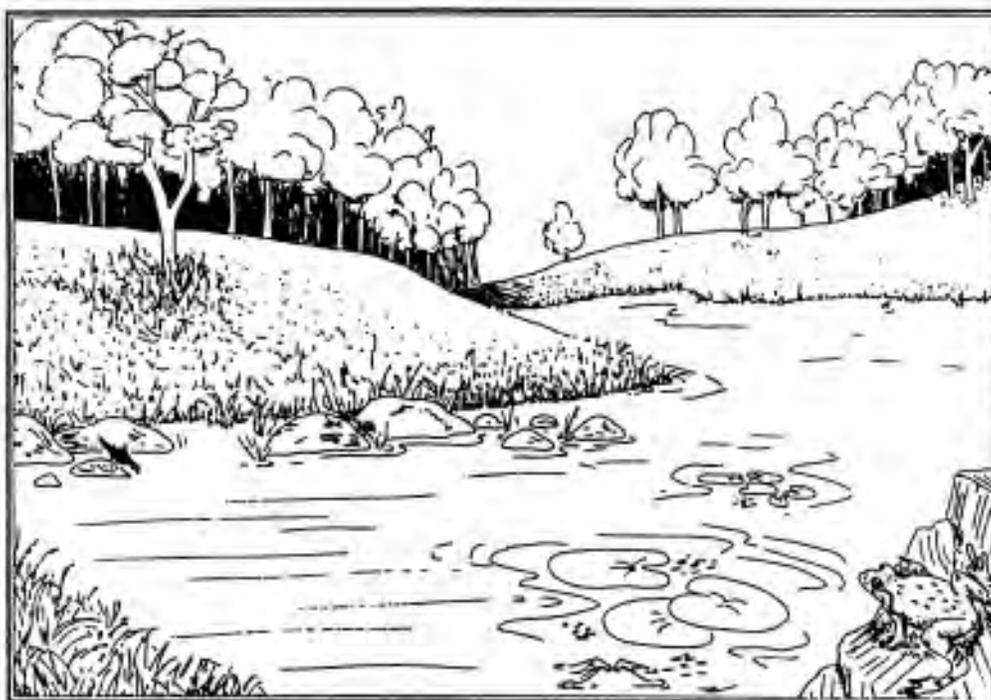
### 8.1 WALK TWO: A CASE FOR CHANGE

*Objective: The afternoon activities focus on changes that occur as spring arrives. As your group explores each of the four activity areas, students should continue to use the four senses to help them discover the changes. Questions to ask the students throughout the afternoon activities include:*

- *How has this discovery changed? What was it like in winter?*
- *Will it change more? What will it be like in summer?*
- *Why does it change?*

Afternoon activities are:

1. Grasslands 20 - 25 minutes
2. Forest 20 - 25 minutes
3. Marsh 20 minutes
4. Creek 20 minutes





## 8.1.1 Grasslands

**Objective:** *Students will identify and describe examples of plant and animal changes that occur on a seasonal basis, including changes in form, appearance, location and activity.*

**Time:** 20 - 25 minutes

**Equipment provided by the Centre:**

1 magnifying glass per student

**Equipment provided by the school:**

1 large plastic bag per student  
student journals, pencils, clipboards

**Setting:** natural grasslands area

**Activity description:**

Walk the group into a natural grassy area, then have them stand still and silent for several minutes. What can they see and hear? Compare their discoveries to winter. What do they think is different? Now have the students look for more subtle changes - ones that perhaps have just started. Have the students kneel on their plastic bags and take a close look at the ground. Gently move the blades of grass. The magnifying glass will help observation of small things such as insects or sprouted seeds.



Possible discoveries of change include:

### insects

- ones that spent the winter in larvae (caterpillar like ) stage are changing to adult form
- eggs will be hatching
- ones that hibernated under dead leaves, rocks etc. will be active

### plants

- blades of new grass pushing up through the dead grass
- new plants sprouted as the early spring wildflowers start to grow

### animals

- ground squirrels have come out of hibernation, may see them or signs of fresh digging at their burrow entrances
- garter snakes are also out of hibernation; may see discarded skin
- young of both species not normally observed until May

### soil

- in spring is usually soft and damp. During winter it is damp and hard; in summer dry and soft.

To complete journal page 8, have the students complete the scene by drawing in their discoveries. Pictures can be coloured later.



## 8.1.2 Forest

**Objective:** *Students will identify and describe examples of plant and animal changes that occur on a seasonal basis, including changes in form, appearance, location and activity.*

**Time:** 20 - 25 minutes

**Equipment provided by the Centre:**

1 magnifying glass per student

**Equipment provided by the school:**

student journals, pencils, clipboards

**Setting:** forest area

**Activity description:**

Walk the group into a treed area. Have the students look and listen carefully. They will discover more changes if they also gently touch and smell objects.

Possible discoveries include:

### insects

- activity at the anthills as the ants are looking for food and repairing the colony
- butterflies emerging from cocoons

### plants

- buds that were formed in the fall and stayed tightly closed all winter are sticky and swollen. Some may be opening to allow leaves to come out.
- branches are more flexible than in the winter because the sap is flowing now

### birds

- hear many different calls as the ones that migrated for the winter have returned

- the chickadees' come together call of chickadee-dee-dee has changed to a territorial call of 2 notes: 1 high and 1 low (fee-bee sound)
- some birds may be seen carrying grass or twigs in their beaks as they start building nests. Other birds may be seen drilling holes in tree trunks to nest inside.

### animals

- winter active animals are shedding their thick winter coats; may find bits of fur caught up in bushes or on tree trunks
- weasel and snowshoe hare are shedding white fur and growing in brown fur so these animals have splotches of both colours now as the change takes 6 - 8 weeks to complete
- red squirrels may appear to be playing tag but actually are establishing and defending territories for mating and rearing of young

To complete journal page 9, have the students complete the scene by drawing in their discoveries. Pictures could be coloured later.





### 8.1.3 Marsh

**Objective:** *Students will identify and describe examples of plant and animal changes that occur on a seasonal basis, including changes in form, appearance, location and activity.*

**Time:** 20 minutes

**Equipment provided by the Centre:**

1 magnifying glass per student

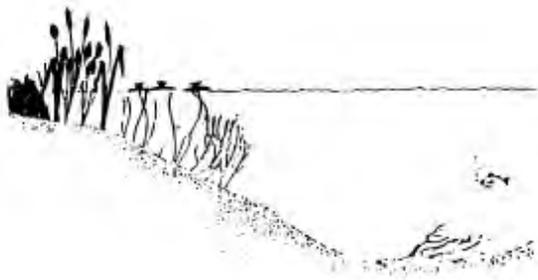
**Equipment provided by the school:**

student journals, pencils, clipboards

**Setting:** marsh area

**Activity description:**

Move the group to the marsh area behind the Centre or the one at the boardwalk of the Orange loop trail. Remember the focus is on identifying changes not specific animals. Students should be considering how the water has changed and will change in addition to considering and observing plant and animal changes.



Depending on the weather during the weeks prior to your Park visit, possible discoveries include:

#### water

- will vary from thick ice to open water
- if open water is seen, is it flowing like a river? (no, this marsh is filled by melting snow and rain.)
- consider when the marsh will have the most water (usually spring) and how much water will be in it during a hot, dry summer (very low or all gone.)

#### plants

- look for pussy willows that may be out by now. If not, look for small, black, pointed buds that have a strong smell. Are they starting to open up at all?

#### insects

- if the ice has melted, students may see insects in egg, larva and adult stages in the water.

#### animals

- frogs may be out of hibernation and calling to establish territory and attract a mate

To complete journal page 10, have the students complete the scene by drawing in their discoveries. Pictures can be coloured later.



## 8.1.4 Fish Creek

*Objective: Students will identify and describe examples of plant and animal changes that occur on a seasonal basis, including changes in form, appearance, location and activity.*

*Time:* 20 minutes

*Equipment provided by the Centre:* none

*Equipment provided by the school:*

student journals, pencils, clipboards

*Setting:* Bridge #1 past the southeast section of the Blue trail or the southwest corner of the Orange trail

### *Activity description:*

Remind the students about safe behaviour near the creek:

**NEVER** step onto any ice on the creek

**STAY BACK** from the creek banks, they may be slippery or eroded

**NO** physical horseplay, someone may be accidentally pushed into the water

At your selected location, direct the student's attention to the creek itself. Keep observations and questions focused on the concept of change and comparison of spring conditions to those of winter and summer.

Depending on the weather during the weeks prior to your Park visit, possible discoveries of change include:

### ice

- thinning, especially in open places that receive more sunlight than shaded areas
- ice on the north bank (same side of creek as the Centre) is melting faster than the south. The north bank receives more sunlight at this time of the year due to the angle of the sun's rays.

### water

- the colour may be a yellowish-brown. This is caused by naturally occurring chemicals which are released from decaying vegetation. The colour will return to normal when spring runoff is finished.
- mounds of bubbles are created when the water, containing agricultural chemicals from runoff through farmlands, is agitated (stirred up). This will disappear also when runoff is over.
- creek water level is at its highest during spring runoff. Dead grass and mud clumps caught in branches on the banks mark the high water levels of previous years. Partially submerged bushes show that the water level is higher than it is the rest of the year.

To complete journal page 11, have the students complete the scene by drawing in their discoveries. Pictures could be coloured later.



## 9.0 POST FIELD STUDY ACTIVITY IDEAS

The intent of post activities is to create connections between what happened on the field study and the classroom learning environment. The education staff at the Fish Creek Environmental Learning Centre think it is wonderful to get samples of students' work, especially things we can post on the walls to share with other visitors.

We would welcome anything you would like to send us. Our address is:

**Fish Creek Environmental  
Learning Centre  
Fish Creek Provincial Park  
13931 Woodpath Road S.W.  
Calgary, Alberta  
T2W 5R6**

If you have access to interschool mail, please forward students' work to the Centre care of Rideau Park School, Calgary Public School Board.

### 9.1 STUDENT JOURNALS

Allow classtime for students to complete their Journals. Conduct activities in class, schoolyard or local natural area that focus on each activity if necessary. Have the students reflect on and share the discoveries recorded in their journals.

Organize the Journals into a "classroom library". Students could then sign out Journals they want to read.

Once their Journals are complete, students can use that information, along with other forms of research that they have access to, in completing the other follow-up activities described here.

### 9.2 EXPERIENCE CHART

Develop a class experience chart. Have each student contribute something they experienced at the Park to the list. Begin by asking "What did you see, hear, smell and touch at the Park?" Reinforce the concept of seasonal change by asking each student, when they give their responses, to indicate how their discovery would change as the seasons change.



### 9.3 CLASSIFYING

To support the math curriculum, have the students, using the Experience Chart, classify their discoveries in a variety of ways. Possibilities for categories include: senses used, colour, size, natural or man-made, living or non-living.

### 9.4 MURAL MAP

Develop a scale drawing of an overhead view of the area surrounding the Centre. The trail map in this package is a good place to start. Use this scale mural and the Experience Chart ideas to map out the locations of as many of the student experiences as possible. Indicate, with words and pictures, where they found flowers, nests or heard an interesting sound. Try to include as many of the senses as possible. Add things that could be touched or smelled. Have a few items hidden under flaps so they are not visible but there are clues for finding them.

### 9.5 LITTER

One sign of spring is litter on the ground. Carelessly discarded throughout the winter and hidden by repeated snowfalls, the extent of the problem becomes evident as warm spring temperatures melt the snow.

Have the students complete a litter pick-up in the schoolyard. Caution the students to leave broken glass or rusty metal for adults to handle.

Back in the classroom, dump the collected litter onto spreadout newspapers. Have the students help you sort the litter into categories. Possibilities include:

- reusable, recyclable and discard
- plastic, paper, glass, metal, cloth, food, other

After the classification is completed, have the students count the items in each category. Either individually or groups, have the students create pictographs to compare the totals.

Discuss with the students the negative effects of litter. How can it harm people, pets, wildlife and the environment?

This discussion could be extended to a unit on garbage. How much do we produce? How do different methods of garbage disposal affect the air, land and water? What can be done to decrease the negative impact on the environment? What does reduce, recycle, reuse mean?

### 9.6 CONSTRUCTING MODEL HOMES

Students may have discovered nests during their field study activities. Birds, mice and squirrels seem to build these with no problems. How easy is it for people? Try it! Discuss with the students the appropriate materials, designs and sizes. Spring yard cleanups yields a treasure trove of dead grass and fallen or pruned twigs. Dandelion fluff makes a soft lining. Playdough, plasticine, or for the adventurous, mud, can be used to hold everything together.



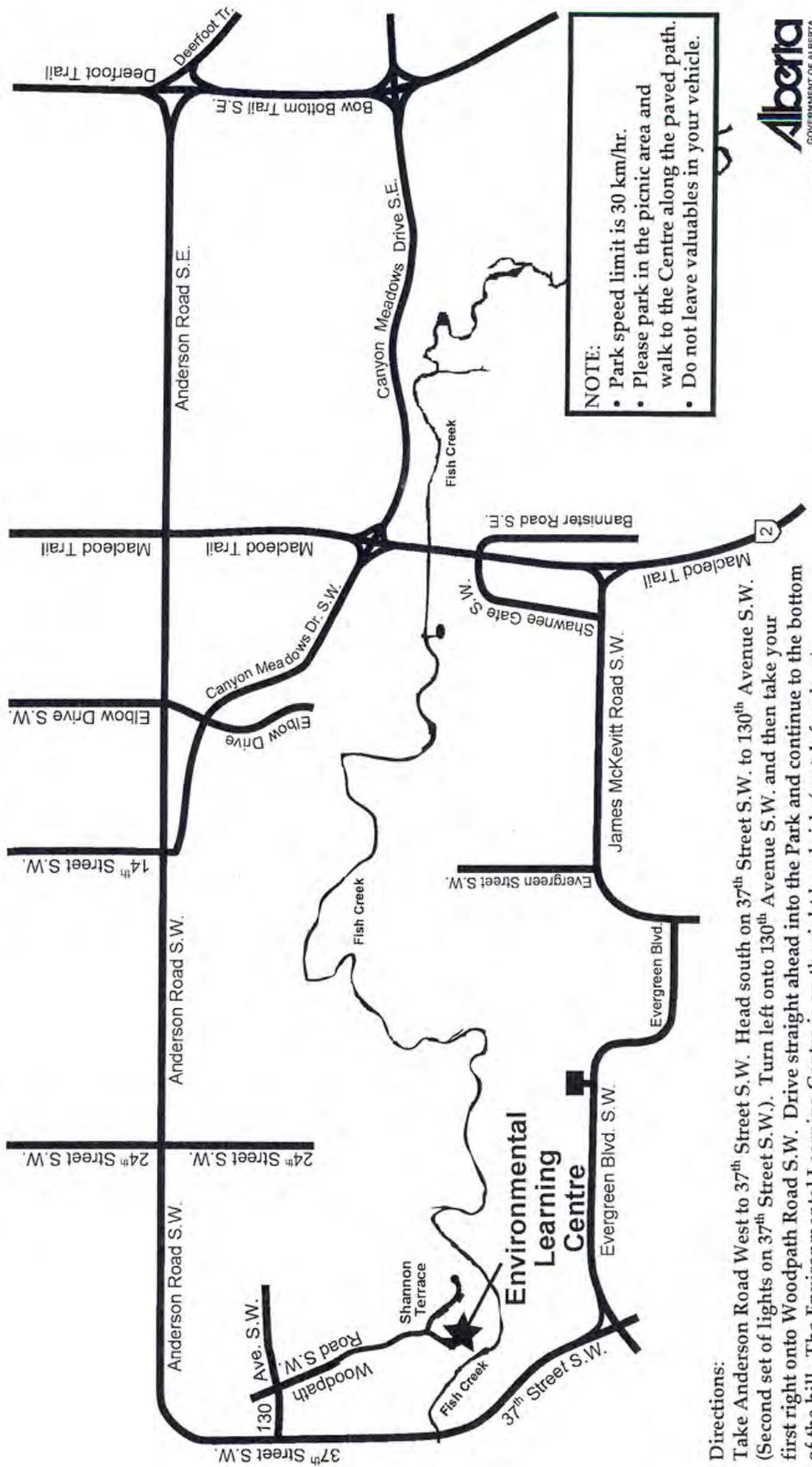
## 10.0 NOTES

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# ACCESS MAP - Fish Creek Environmental Learning Centre

13931 Woodpath Road S.W., Calgary, Alberta T2W 5R6  
Phone: (403) 297-7827 Fax: (403) 297-7849  
www.fish-creek.org



**Directions:**  
Take Anderson Road West to 37<sup>th</sup> Street S.W. Head south on 37<sup>th</sup> Street S.W. to 130<sup>th</sup> Avenue S.W. (Second set of lights on 37<sup>th</sup> Street S.W.). Turn left onto 130<sup>th</sup> Avenue S.W. and then take your first right onto Woodpath Road S.W. Drive straight ahead into the Park and continue to the bottom of the hill. The Environmental Learning Centre is on the right hand side (watch for signs).



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Washrooms



Picnic Sites  
(with Fire pits)



Amphitheatre



Public Parking



School Group  
Parking Only



Bench



Fence



Asphalt Trail



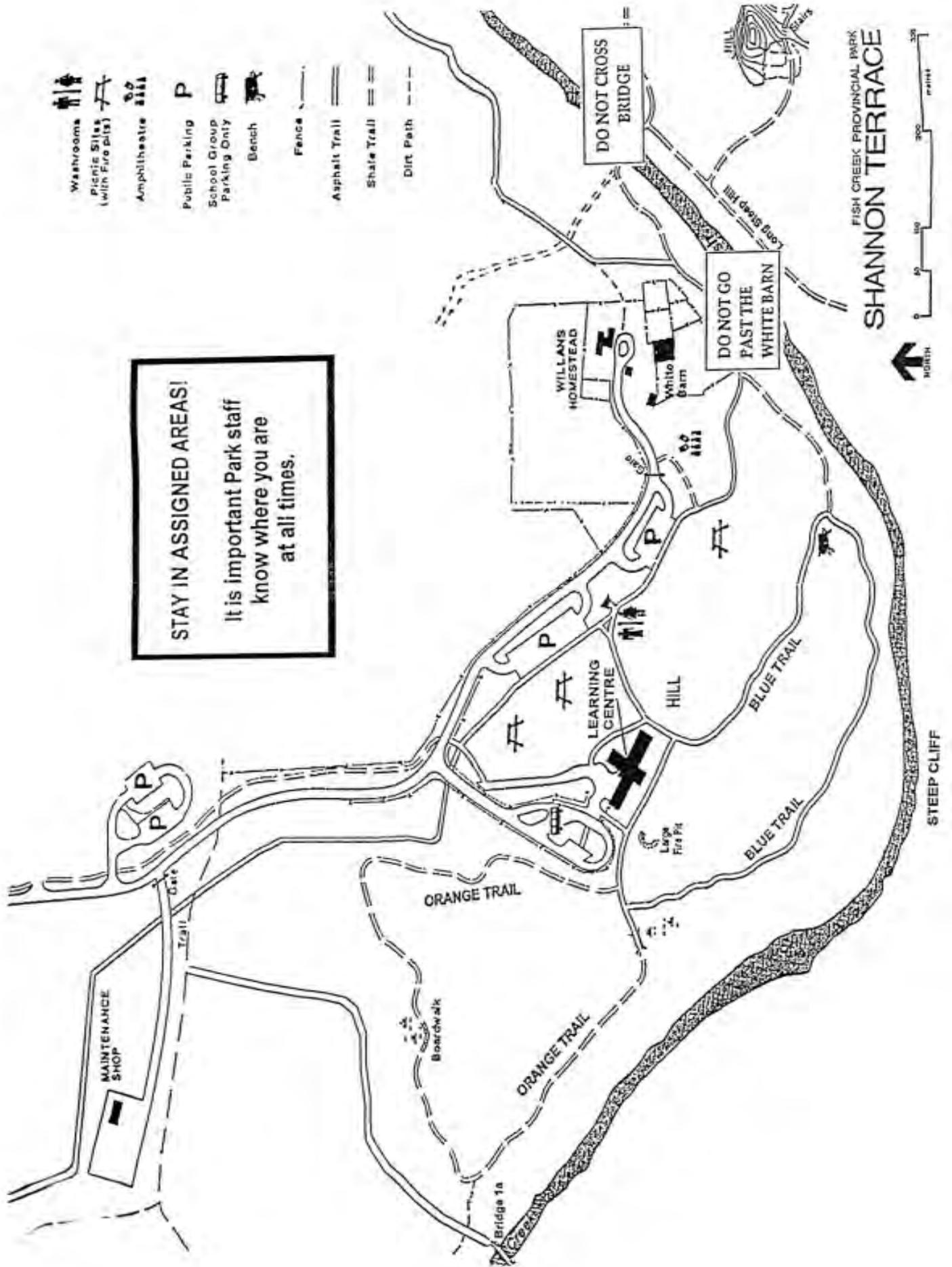
Shale Trail



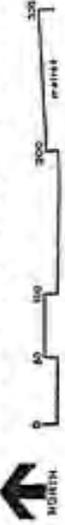
Dirt Path

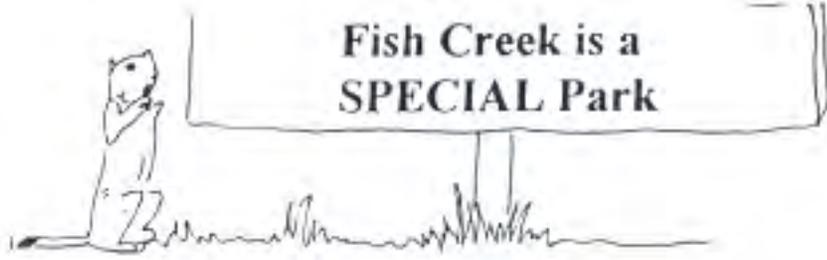
**STAY IN ASSIGNED AREAS!**

It is important Park staff  
know where you are  
at all times.



FISH CREEK PROVINCIAL PARK  
**SHANNON TERRACE**





# Enchanted Spring



NAME: \_\_\_\_\_



# DO I CHANGE?

Birth Date \_\_\_\_\_

Height \_\_\_\_\_

Weight \_\_\_\_\_

Hair Colour \_\_\_\_\_

Foot Size \_\_\_\_\_

My favourite food was \_\_\_\_\_

Today's date \_\_\_\_\_

Height \_\_\_\_\_

Weight \_\_\_\_\_

Hair Colour \_\_\_\_\_

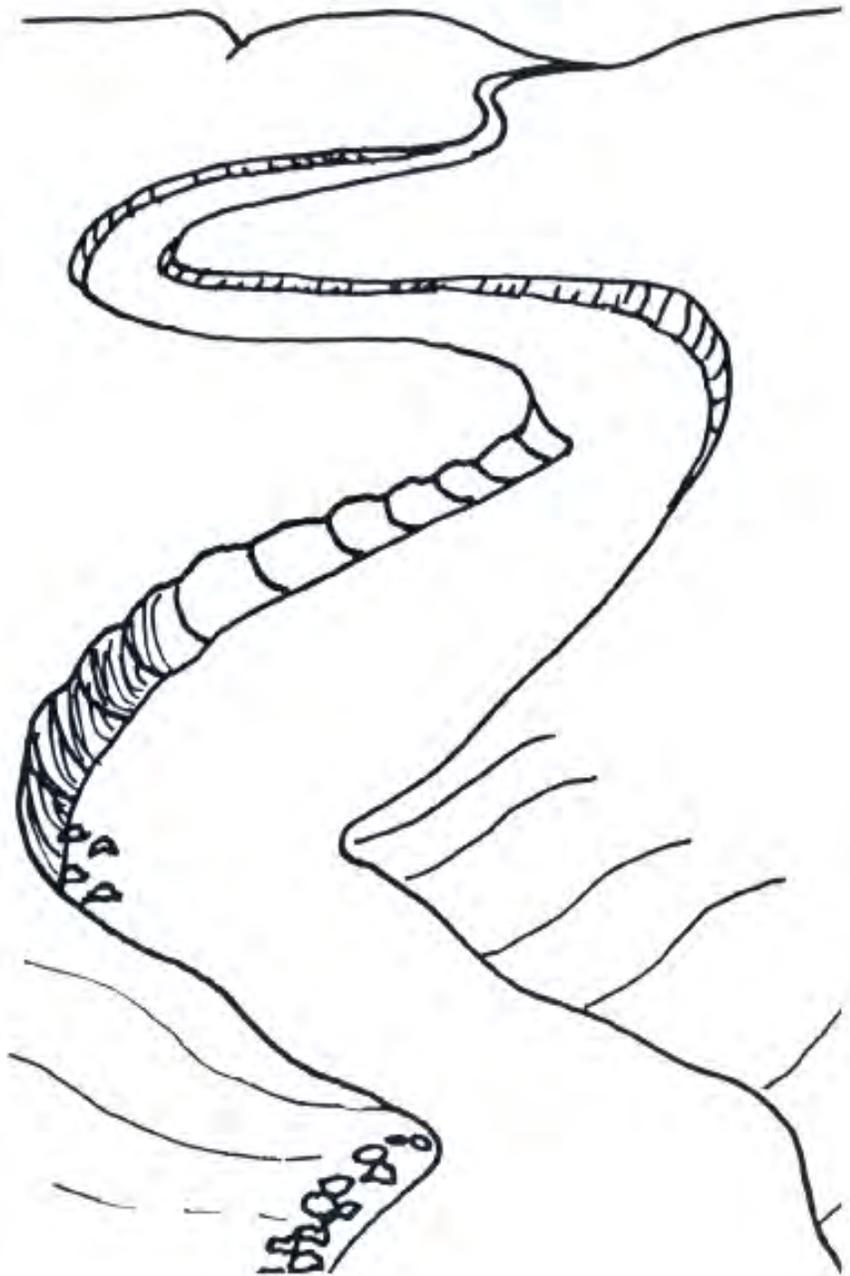
Foot Size \_\_\_\_\_

My favourite food is \_\_\_\_\_

My favourite hobby is \_\_\_\_\_

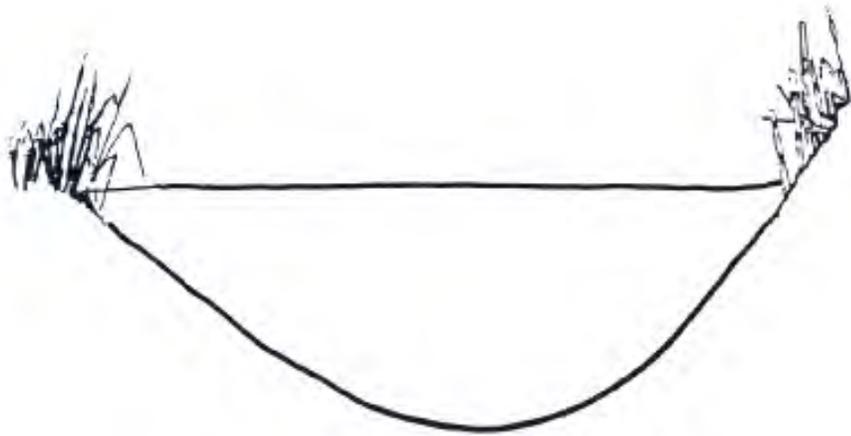


# FISH CREEK





# MARSH



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# COLOUR SEARCH

light

medium

dark

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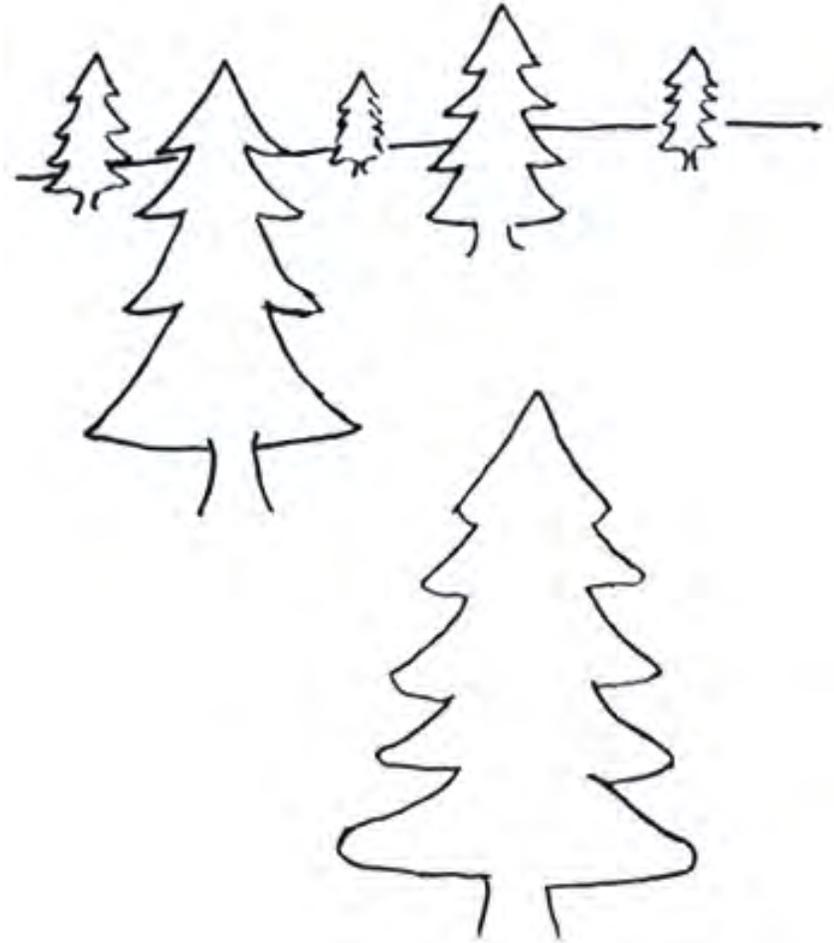
# I HEARD



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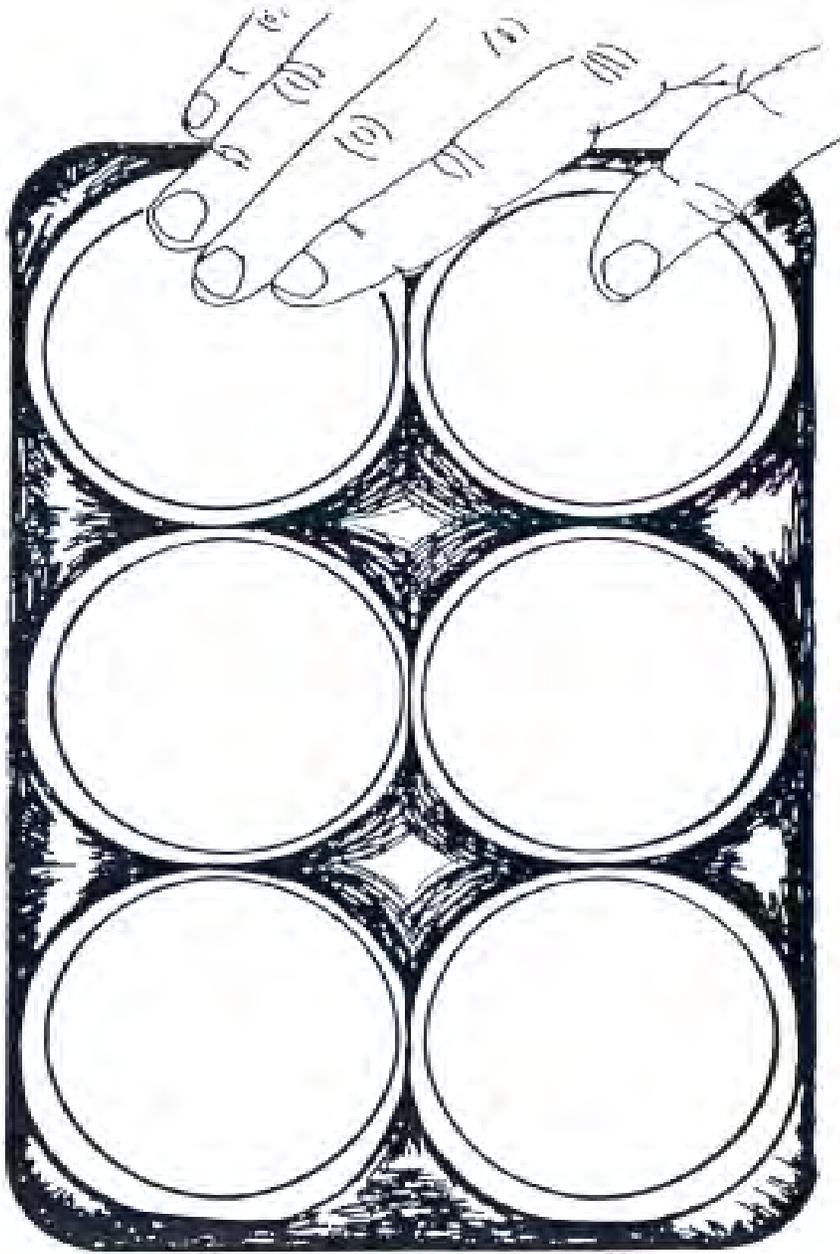


# FOREST



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# 1/2 DOZEN TOUCHES



Publication only for use in conjunction with a scheduled Fish Creek program - not for public distribution.

# NAME GAME

Publication only for use in conjunction with a scheduled Fish Creek program - not for public distribution.

# GRASSLANDS



# SMELLS

\_\_\_\_\_ dead grass and living grass

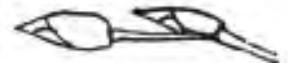


\_\_\_\_\_ cones and needles from evergreen trees

\_\_\_\_\_ bark and sap from evergreen trees

\_\_\_\_\_ buds of different bushes

\_\_\_\_\_ damp and dry soil



\_\_\_\_\_