

HIDDEN WORLDS

A teacher-conducted field study for
Kindergarten students



FISH CREEK
ENVIRONMENTAL LEARNING CENTRE

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Introduction

This is a curriculum-connected, full day field study with multidisciplinary preparatory and post-visit activity support. The intent is to offer a natural world experience for students that reflects the outdoor field study components of the kindergarten program statement as set out by Alberta Learning and also reflects the priority actions of Alberta’s Plan for Parks .

Fish Creek Provincial Park is one of Canada’s largest urban provincial parks, stretching from the western edge of the city to the Bow River. The park has a strong vision within its visitor services program plan to support and foster environmental and cultural education.

Alberta Parks acknowledges that Fish Creek Provincial Park is part of the traditional territory of Treaty 7 region in Southern Alberta, which includes the Blackfoot Confederacy (comprising Siksika, Piikani and Kainai First Nations), the Tsuut’ina First Nation, and the Stoney Nakoda First Nation. The City of Calgary is also home to Metis Nation of Alberta, Region III.

Table of Contents

FACILITY & RULES

- The Facility 3
- Snack Break Procedures 4

BEFORE THE VISIT

- Preparation Materials 5
- Teacher Checklist 6
- Key Messages 7
- Pre-field Trip Activities 8

PARK ACTIVITIES

- Program Equipment 9
- Information Booklets 10
- Field Trip Activities 11

POST-FIELD TRIP

- Post-field Trip Activities 12

RESOURCES

- Parent Recruitment Letter 13
- Anthill Maze Worksheet 14
- Student Journal 15

MAPS

- Access map 19
- Map of program trails 20



Facility & Rules

THE FACILITY

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

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. **There is a fee charged for lost or broken equipment.**
3. Washrooms and water fountains are located in the building. There are no vending machines or coffee available.
4. A short orientation (about 15 minutes) will be provided to the entire group upon arrival to welcome and introduce everyone to the park, its rules, the program for the day and what the students may discover outside.
5. Parent volunteers will have a separate orientation (about 10 minutes). This will introduce them to the equipment provided, to a map of the activity area (maps provided), to the general flow of the day, and will answer any questions that they may have.
6. A washroom and snack break will take place *after* the group orientation and during the parent volunteer orientation. Please ensure that the students are supervised during this time.
7. **There are NO indoor activities available. Please bring your own activities and/or DVDs when planning for inclement weather.**



SNACK BREAK PROCEDURES

Your class may eat inside the facility, within their assigned room. Please ensure that the students understand the following :

INSIDE THE BUILDING

- Students must be supervised by an adult while they are in the building (classrooms and washrooms).
 - Classes from other schools may be in the facility at the same time. Please respect them and keep noise to a minimum, especially in the washrooms, hallways and other common areas.
 - Help us keep the classrooms clean. There are garbage containers in the brown cabinets by the classroom doors.
 - Recyclable containers go into the brown cabinet labelled “Juice boxes, cans and bottles”. Do the students know what recycling is, how it conserves resources and how it helps the environment?
 - Leftover fruit and vegetable materials, such as banana peels and apple cores, are collected in a white compost bucket in each room.
-

OUTDOOR FACILITIES

There is a picnic area just to the north of the Fish Creek Environmental Learning Centre, about two minutes walk up the trail, with plenty of picnic tables.

There are several picnic tables and a fire pit behind the Fish Creek Environmental Learning Centre. This area is available on a first-come, first-served basis.

When using the fire pit area be sure to:

- Provide your own roasting sticks and firewood. **Do not use branches or deadfall from the park.**
- Have a bucket of water nearby **before** the fire is lit. Check that the fire is out before you leave.
- **Do not feed or disturb wildlife.**

Preparation Materials

1. Site Visit

Teacher Orientation

Attending a teacher orientation prior to your class visit is mandatory and essential for familiarizing yourself with the facilities and the surrounding trails.

Returning teachers are not obligated to attend but are welcome. Dates for the teacher orientations will be sent to you via email so you can register for an orientation on a date of your choice.

2. Preparation Checklist

A teacher checklist for your field trip preparation is available on the next page.

These are general guidelines to assist you in planning your field trip.

3. Program Start and End

Program start and end times are flexible to accommodate bus availability and travel distance to the park. In general, half-day programs start between 9:30- 10:00 am and finish between 11:30 and 12:30 pm.

4. Field Trip at a Glance

Group Orientation (10 minutes)	Overview of park rules, safety and behaviour expectations for the day
Student Snack Break Parent Volunteer Orientation (10-15 minutes)	Overview of program activities, equipment and trail safety for parent volunteers.
Educational Activities	Students explore the park in small, parent-led groups. Environmental Educator will be available to answer questions and provide support during your lunch break and at the end of the day and is always available should the need arise at the Learning Centre.
Groups return to Learning Centre for Program Wrap-up	Final washroom break, head count, inventory and return equipment borrowed from the park, gather personal belongings.

Program Wrap-up should take place at least 15-20 minutes prior to the scheduled bus departure.

TEACHER CHECKLIST: Preparing for Your Day at the Park

Prepare yourself

- ☐ Read the teacher package thoroughly: phone 403-297-7926 if you have any questions.
- ☐ Register for and attend a Teacher Orientation date on site before your field trip.
- ☐ Book your bus(es).
- ☐ Give every driver - including the bus driver - a copy of the route map (found in the Appendix).
Make sure all drivers know you are coming to the west end of the park, near Woodbine!
- ☐ Check student health forms, looking for allergies in particular to bee/wasp stings
- ☐ Bring a first aid kit and a few band aids with each adult.

Prepare the students

- ☐ Discuss how Fish Creek Provincial Park is a wild environment.
 - Do not feed or disturb wildlife: Quietly observe all wildlife from a comfortable distance.
 - Leave only footprints: Share discoveries, but leave everything as they found it.
 - Pitch in: Litter should be placed in the rubbish bins provided or in a pocket.
- ☐ Discuss behavioural expectations. Explain that the field study will be another school day, just at a different place. All the school rules apply.
- ☐ Discuss the purpose of provincial parks and protected areas. Have the class make a list of ways they can show respect for living things during their visit to the park. *Possibilities include:*
 - Stay well back from the banks of Fish Creek
 - Leave ant hills, nests and rotting logs alone and intact. They are animal homes.
 - Walk with care and mindfulness to minimize your impact.
- ☐ Discuss outdoor safety. Students need to:
 - Stay with an adult all times.
 - Walk, do not run.
 - Keep feet on the ground: no climbing.
 - Leave dead branches on the ground:
- ☐ Discuss what to wear on the field trip
 - Hats, sunscreen, insect repellent.
 - Runners, comfortable boots (no sandals/high heels). Dress in layers and bring extras.
- ☐ Complete some preparatory activities, either the ones in this package or your own.

Prepare the adults

Please follow the recommended adult to student ratios as outlined in your school board regulations.

- ☐ Provide the following to adult volunteers and review with them: Key Messages, Chaperone Letter, Map, Inform them they will be provided an orientation and information booklet on the day to assist them during the program.
- ☐ Emphasize the following: there is nowhere to buy anything in the park, including coffee.
- ☐ Ensure adult volunteers are aware that their role is to lead a small group of students for part of the day and supervise students during the snack period.

FISH CREEK PROVINCIAL PARK: Key Messages

Please review and be sure everyone understands the following information before your visit the park.

- Our vision: Alberta's parks inspire people to discover, value, protect, and enjoy the natural world and the benefits it provides for current and future generations.
- Alberta Parks acknowledges that Fish Creek Provincial Park is part of the traditional territory of Treaty 7 region in Southern Alberta, which includes the Blackfoot Confederacy (comprising Siksika, Piikani and Kainai First Nations), the Tsuut'ina First Nation, and the Stoney Nakoda First Nation. The City of Calgary is also home to Metis Nation of Alberta, Region III.
- 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 as well as significant cultural and historic resources. The province's network of parks and protected areas helps to ensure that Alberta's natural and cultural heritage is preserved for future generations.
- There are a wide variety of visitors and users of our parks. Everyone must respect and share the park and its facilities and resources.
- Stay on designated trails while moving through the park and participating in group activities. Staying on designated trails reduces impact to the natural habitats of the park. Please share the trail with other users.
- Feeding wildlife is prohibited. The park's ecosystems provide all the food and habitat wildlife require for their basic needs. Feeding wildlife can cause wildlife to associate humans with food. Quietly observe wildlife from a safe and comfortable distance so as not to disturb them or put them or you at risk.
- Everything in the park – living and non-living is protected. Students are welcome to share their discoveries, but must remember to leave everything as they found it. Do not remove anything natural from the park.
- Litter must be placed in garbage cans or packed out.
- Use only designated fire pits. The collecting and burning of park vegetation is not permitted. You must ensure fires are fully extinguished before leaving them.



Pre-field Trip Activities

Preparatory activities are essential to the success of your trip! The preparatory activities described here will introduce the field study day to your students and will allow them to practise the skills to be used during the field study day.

Feel free to use your own activities and the ones described in this package. Within the activities you select and present to your students be sure to consider other curriculum areas and explore how all subject areas can be connected to your field study day.

1 Vocabulary Worksheet: No

Ensure that your students are familiar with the meaning of the following terms.

- adaptation - physical characteristic or behaviour which helps a plant or animal live successfully where it does. For example, grasshoppers have strong legs for jumping to escape predators.
- camouflage - body colour or markings that help an animal hide from its predators (enemies).
- predator - animal that hunts other animals for food.

2 Anthills Worksheet: Yes

One of the on-site activities teaches the students about wood ants and their anthills. These are quite different than the anthills in gardens and playgrounds. If possible, show your students an anthill in the school grounds.

Discuss the size, shape and materials that the hill is made from. Look for entrance holes and allow the students to observe the activity of the anthill.

If possible, encourage the students to observe the size and colours of the ants in the playground or garden.

Print off the A-Mazing Ant worksheet and challenge the students to solve the maze. After, encourage the students to colour the background and draw more ants for the nest.

3 Magnifying Glasses Worksheet: No

On the day of your fieldtrip, the Learning Centre will provide a mini magnifying glass for each of your students. These tools allow students to explore the very small and hidden world of insects. To enhance the success of these activities, ensure students know how to correctly use a magnifying glass and allow them classtime to practice.

4 Insects and Spiders Worksheet: No

Use a picture of an insect and a picture of a spider to help the students understand and learn the following information.

An insect is an animal that has 3 distinct body parts (head, thorax, abdomen), 3 pairs of legs attached to the thorax and a pair of antenna. Not all insects have wings. In comparison, a spider has 2 body parts (cephalothorax and abdomen), 4 pairs of legs and no antennae. Not all spiders spin webs.

To strengthen the understanding of insect anatomy, try this song with your students (to the tune of Head, Shoulders, Knees and Toes)

Head, thorax, abdomen, abdomen (*Touch head, waist, and touch and wiggle hips.*)

Head, thorax, abdomen, abdomen (*Touch head, waist, and touch and wiggle hips.*)

Two antennae, two eyes (*Use the pointer fingers to make antennae on top of the head. Point to eyes*)

Four wings, six legs (*Hold out two fingers on each hand at shoulder height and pretend to fly. Then make six legs by holding three fingers from each hand at the waist.*)

SOURCE: Fontenelle Nature Association - Science in the Early Years—Natural Science Programming for the Very Young

5 Student Journals Worksheet: Yes

The student journal is a tool the students, teachers and parent volunteers will use to record and reflect on what they are learning through their multidisciplinary exploration of the natural world.

Once you have selected the activities you will do for the field study day, create a master copy of the journal by printing the appropriate pages from those included at the end of this package.



Program Equipment

The Learning Centre will provide your students with equipment and resources to utilize throughout the day.

PLEASE NOTE: There is an additional fee for lost, stolen or broken equipment.

For the *Kindergarten Hidden Worlds* program, your students will be provided with the following:

1

Seasonal Scavenger Hunt

Students will seek signs of the changing season with kinesthetic, auditory and visual objectives. This is not meant to be a competition, rather it is a fun way for students to hone their observation skills.

2

Bug Catchers

With the assistance of parent leaders, students will capture invertebrates to closely examine their physical and behavioural adaptations.

3

Dental Mirrors

Students will use dental mirrors to explore fallen logs, carpenter ant holes and underneath shrubs.

Students will use the mirror to reflect light into shades to reveal more creatures.

4

Rope Lasso

Parent leaders will create a large “rope lasso” on the ground. The students will then find, examine and describe the creatures found inside.

5

Magnifying Glasses

Students will use the magnifying glasses to examine their captured invertebrates.

Students will use the magnifying glasses to investigate bark beetle tunnels and ant nests.

Field Trip Activities

Information Booklets



The Learning Centre will provide your adult chaperones with an information booklet with all of the field trip activities outlined and explained in full detail. These booklets will have pictures and information that will support and enhance your students' learning.

These booklets will be provided at the Park for your field trip.

By providing laminated copies, at your field trip we hope to reduce the amount of photocopying and wasted paper.

Important Notes:

- We greatly appreciate all feedback to strengthen our resources; please let us know if you have any recommended changes

Field Trip Activity Summary

The following Field Trip Activities are curriculum-connected. You are certainly welcome to change, remove or follow the activities to suit the needs of your students.



Insect Lasso Worksheet: Yes

- Students will get up close and personal with the habitat (the ground/grass) of many invertebrates.
- Students will observe and identify invertebrates and compare and contrast insects vs. arachnids (spiders).



Into the Looking Glass Worksheet: Yes

- Students will discover the hidden worlds in the park by using a dental hand mirror.



Shrub Shake Worksheet: Yes

- Students are encouraged to observe, describe, and compare the types of invertebrates that inhabit the leaves and stems/branches of a shrub.
- Students will discuss the function of camouflage, as it relates to invertebrates.



Tree Trunk Tales Worksheet: Yes

- Students will examine the tunnels left by bark beetles on tree branches and trunks.



Under Worksheet: Yes

- Students will discover and uncover the vast array of invertebrates that live under things (like logs, rocks, leaf litter, etc.).
- Students will describe the creatures that they find.



Anthills Worksheet: Yes

- Students will explore the activity that takes place at an anthill; they will also examine what the anthill is made of, including noting its shape and size.

Post-field Trip Activities

In addition to a class discussion about trip highlights and favourite activities, students may need class time to complete data sheets or to share information about their discoveries.

Student Journals *Worksheet: Yes*

Distribute the student journals and explain, page by page, what the students could draw. Use the adult journals as references if the students require some assistance. Page 8 provides space for the students to do a full picture of the Park. Invite the students to share their completed journals with their classmates either verbally during a sharing circle or by adding them to the class "library" so others could look at them any time.

Beetle Blitz *Worksheet: No*

(Otherwise known as Cootie or Beetle)

In small groups of two to six children, distribute paper, pencils and a 6 sided die. Each student will roll the die, with each number of the die representing a different body part of the insect.

Below are what the die numbers represent and the number of body parts needed to complete the drawing of the insect.

1. The body (abdomen) (1)
2. The thorax (1)
3. The head (1)
4. One eye (2)
5. One feeler (2)
6. One leg (6)

When the player rolls a number that (s)he needs, (s)he is able to add that part to the body. For easier playing, the head and the body do not have to be connected by the thorax before adding parts.

Circulate throughout the group to facilitate discussions on how many body parts and legs are needed for an insect and assist the students in ensuring fair play. The winner is the first one to complete the drawing of the insect.

Important Invertebrates *Worksheet: No*

Through class discussion compile a list of the many different ways invertebrates affect the environment and people.

Some possible answers are:

- pollinate plants (including crops that are important food sources for people)
- food source for many other animals
- as scavengers they "clean-up" the environment
- provide honey and silk for people
- are enjoyable to hear and watch
- can carry germs and diseases

Insects have an important role in helping humans.

Allow the students to choose their favorite "Human Helper" to write a thank you card to that insect.

Write one sentence on the board for each insect that the students can copy, or print these off before the activity.

For example: *Thank you busy bees for making honey!*

Encourage the students to draw the insect and how it helps humans.

Build a Bug *Worksheet: No*

Discuss different habitats in which insects live (forests, gardens, water, grasslands) and the ways the insects are adapted for those areas.

Come up with silly habitats (outer space, backpack, toy store) where insects might live.

Allow the students to draw the insects that may live there and their adaptations.

Same and Different *Worksheet: No*

Compare the *Hidden World* of Fish Creek Provincial Park and your school yard by taking your students outside.

Investigate the insects that may be hiding in the grass, shrubs and anthills in the school yard. If your school has a naturalized area, explore the animals that live there.

What insects are the same as those in Fish Creek Park? Which ones are different? Why?

Dear Adult Volunteer,

Thank you for volunteering for a field trip to Fish Creek Provincial Park! This excursion allows students to explore, discover and learn in one of the largest urban parks in North America.

Here are a few tips that may help you enjoy your visit:

- Pack a hearty and healthy lunch (snacks and water too!). There are no vending machines or stores onsite to purchase food.
- Please dress appropriately for the weather. We will run our programs rain, snow or sunshine.
- Ensure that you are aware of what part of Fish Creek the program is taking place. We host educational programs at the WEST end (near Woodbine) and the EAST end (near Deer Run).

Our staff will be available throughout the day to ensure that you and your group have a safe and educational experience in the park.

You are not expected to be a naturalist or history expert, but a positive attitude goes a long way!

Thank you again, we are very excited to see you in the park soon.

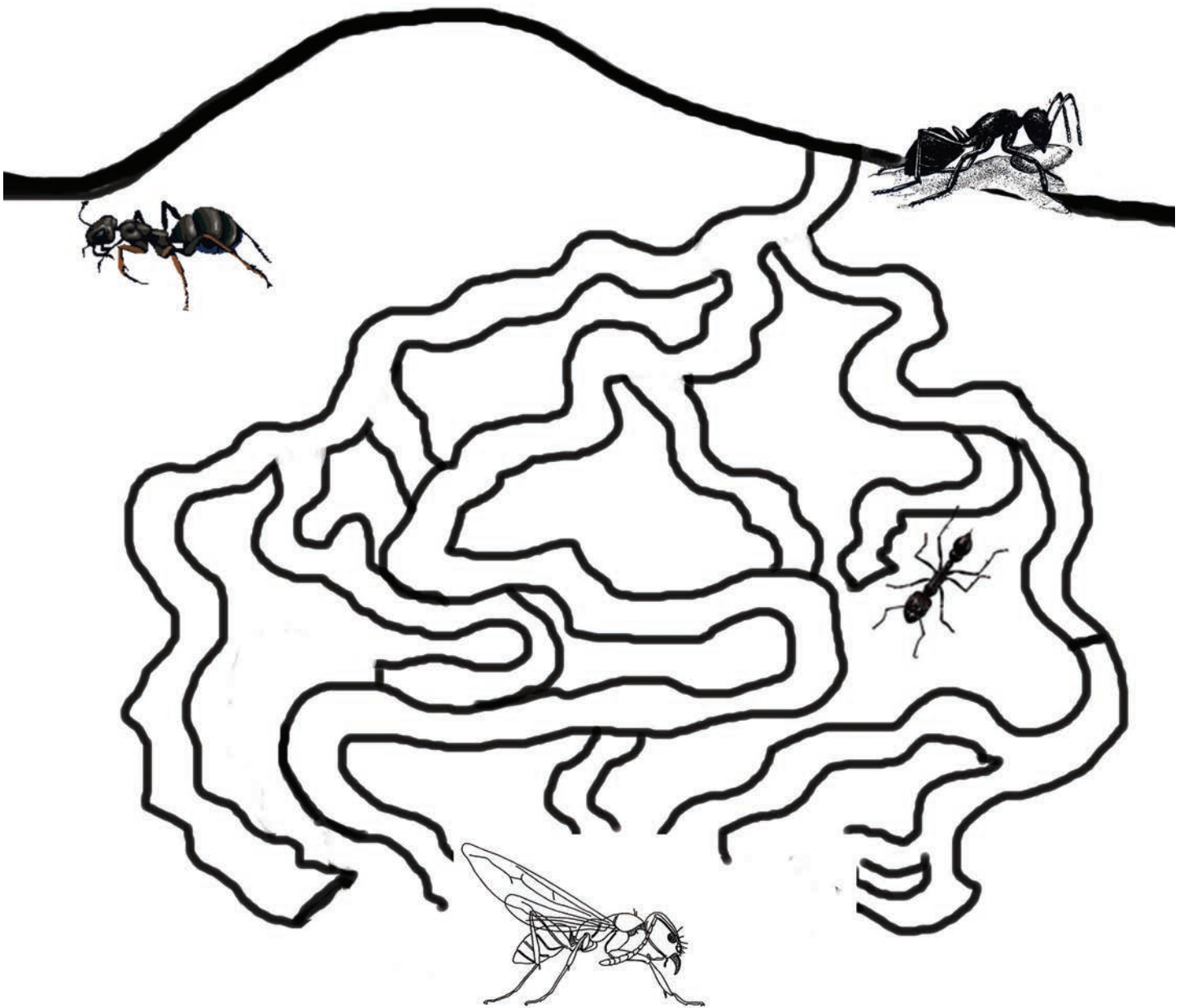
Warmest regards,

Environmental Education Team



A-Mazing Anthills!

Help the ant bring food back to the Queen inside the anthill.



**Hidden Worlds of
Fish Creek Provincial Park**

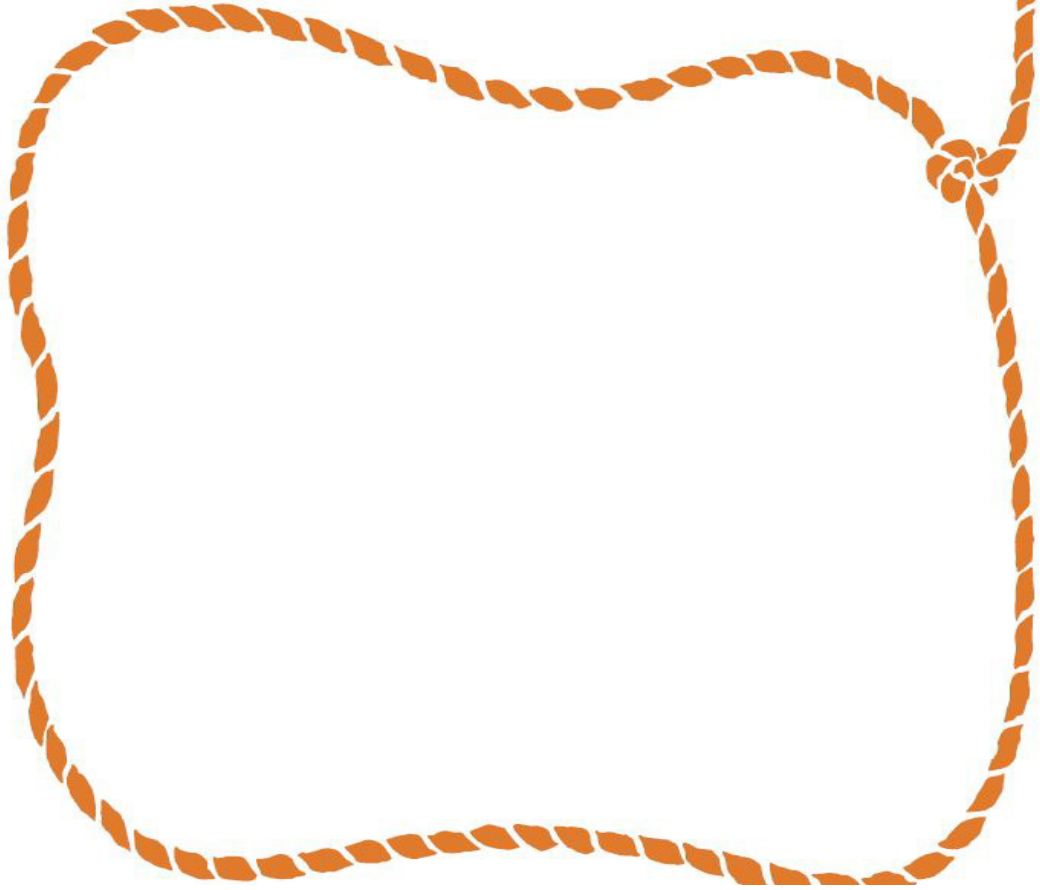
Hidden Worlds



Name: _____

CREATURE LASSO

Draw the creatures that you find within your lasso.



2

ANTHILLS

Draw the anthill you may find in a school yard.

Draw the anthill you found in Fish Creek Provincial Park.

7

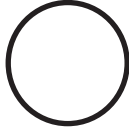
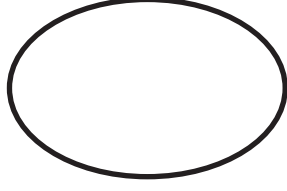
TREE TRUNK TALES

Rub the SIDE of your pencil on a bark beetle tunnel to record the patterns on paper.

5

SHRUB SHAKE

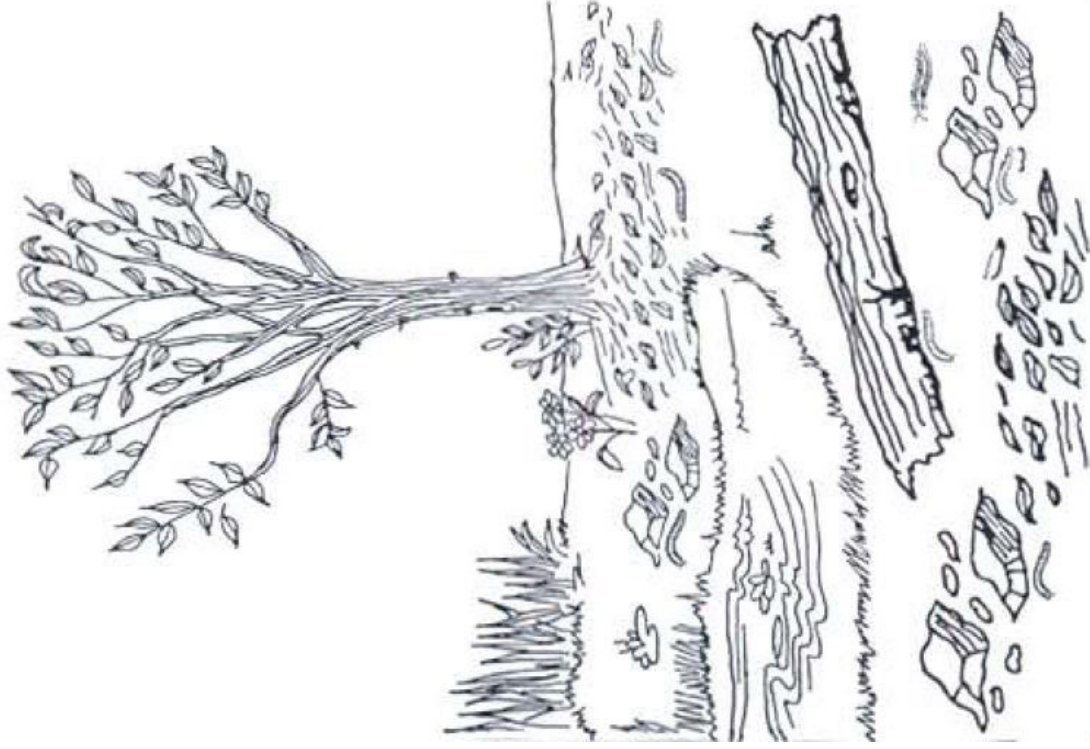
Complete the shapes by adding legs and wings to make the insects you find!



4

UNDER

Draw the creatures you discovered *under* the objects in the picture below.



3

INTO THE LOOKING GLASS

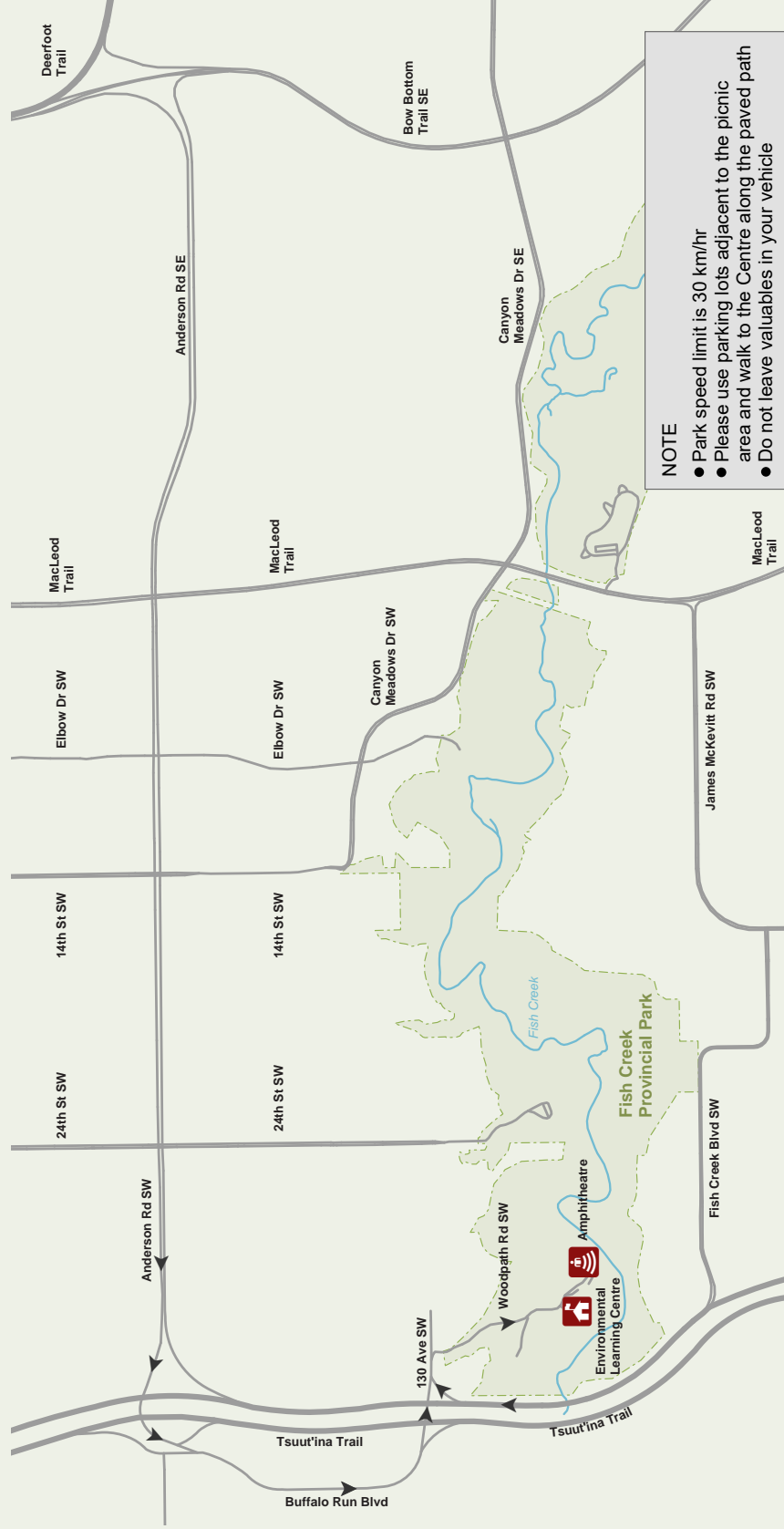
Draw the creatures that you saw using the mirror!

6

Directions Map

Access Map - Fish Creek Environmental Learning Centre

13931 Woodpath Road SW, Calgary, Alberta



DIRECTIONS

From Anderson Rd SW heading west:

- Follow signs to Tsuut'ina Trail and follow exit onto Buffalo Run Blvd
- Follow Buffalo Run Blvd past the gas bar and Costco complex to 130 Ave SW
- Heading east through two traffic circles to continue onto 130 Ave SW
- Turn right onto Woodpath Rd SW and follow road straight into the park

From south of 130 Ave SW on northbound Tsuut'ina Trail:

- Take the 130 Ave SW exit and keep right at top of ramp onto eastbound 130 Ave SW
- Turn right on Woodpath Rd SW and follow road straight into the park



Trail Map

Program Trails at the Fish Creek Environmental Learning Centre

**PLEASE STAY IN
ASSIGNED AREAS!**

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

