WETLANDS

A Field Study for Grade 5 Students

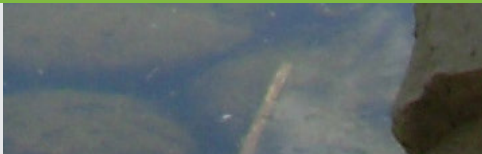
FISH CREEK
ENVIRONMENTAL LEARNING CENTRE

FishCreek.Education@gov.ab.ca

www.Fish-Creek.org

CONNECTING PEOPLE WITH PARKS
FISH CREEK
ENVIRONMENTAL
LEARNING CENTRE

Alberta Parks



Introduction

This is a curriculum-connected, full day study with multidisciplinary preparatory and post-visit resources. The intent is to offer a hands-on experience for students that naturally immerses them in the field study components of *Topic E: Wetland Ecosystems* from the Grade 5, Alberta Elementary Science Curriculum components and the vision 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.

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Facility & Rules

THE FACILITY

The Fish Creek Environmental Learning Centre (13931 Woodpath Road SW) is located at the west end of the park and offers five indoor classrooms, bathroom facilities, an outdoor picnic area, an accessible trail system and an extensive variety of natural ecosystems: an old growth spruce forest, grasslands, riverine forests, a creek and several wetlands as well as disturbed (urban) areas.

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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 missing or broken equipment.**

3. Washrooms and water fountains are located in the building. There are no vending machines or coffee/tea 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. A snack break will take place *after* the group orientation. Please ensure that the students are supervised by teachers during this time.

6. Volunteers will have a separate orientation (~10 minutes) on the day of the field trip during student snack break. 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 answer any questions that they may have.

7. **There are NO indoor activities available. Please bring your own activities and/or DVDs when planning for inclement weather.**

LUNCH BREAK PROCEDURES

Please challenge your class to bring a litter-less lunch to the park for their program. See the Pre-Field Trip Activities section of this manual for more information and how this relates to the field trip topics of study.

INSIDE THE BUILDING

Your class may eat inside the facility, within their assigned room.

- Students must be supervised by an adult at all times while they are in the building (including classrooms, washrooms and hallways).
- Classes from other schools and parks staff may be in the facility at the same time as your class(es). Please respect them and keep noise to a minimum, especially in the washrooms and common areas.
- Help us keep the Learning Centre clean. There are garbage and recycling containers in the brown built-in cabinets in each room.
- 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 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. Plenty of additional picnic tables are available just north of the Learning Centre building about a 2 minute walk up the trail.

- Students must be supervised by an adult at all times.
- Fish Creek Provincial Park is a public park and the facilities in an around the Learning Centre are for everyone to use. Please respect other park users.
- Leave no trace: All garbage, recycling and compost must be put in appropriate bins (outside or in the building)
- **DO NOT FEED OR DISTURB WILDLIFE.**
- If you choose to use the fire pit you must bring your own firewood. **Do not use branches or deadfall from the park.** Have a bucket of water nearby and check that the fire is out before leaving the fire pit area.

Before the Visit

PREPARATION

The following steps and materials will assist you in preparing for you field trip to Fish Creek Provincial Park. Please take the time to review the following pages carefully.

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 full, detailed teacher checklist for your field trip preparation is available on the next page.

3 Program Start and End

Program start and end times are flexible to accommodate bus availability and travel distance to the park. In general, programs start between 9:30- 10:00 am and finish between 1:45- 2:00 pm.

4 Field Trip at a Glance

Group Orientation (15 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 for adult volunteers.
Educational Activities	Class 1: Students explore the park with small volunteer-led groups. Class 2: Staff educator leads students on a guided walk and pond dipping.
LUNCH BREAK	
Educational Activities	Class 2: Students explore the park with small volunteer-led groups. Class 1: Staff educator leads students on a guided walk and pond dipping.
Groups return to the Learning Centre for Program Wrap-up	Debrief by staff educator. Final washroom break, head count, and 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(ses).
- ❑ 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 the next section of 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, access map, information booklets will be provided to volunteers on the day of the trip to assist them in leading groups.
- ❑ Emphasize the following: there is nowhere to buy anything here, 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 guided walk/pond dipping and lunch 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.

Alberta Alberta Parks

PRE-FIELD TRIP ACTIVITIES

Preparatory activities will enhance your students experience and learning at the park.

Vocabulary

RESOURCE: Appendix p.A1-A4
Review science vocabulary with the class. This could be done in any number of ways:

- Have students create a rap or new lyrics for a popular song using vocabulary
- The terms can be introduced through games such as DRAGONFLIES AND FROGS
- Photocopy the crossword puzzle or word search from the appendix. Distribute to the students. A fun way to test their knowledge!
- Play Vocabulary Bingo. You call out the definitions and students have the words on their Bingo sheets.

Preparatory and Post Test

RESOURCE: Appendix p.A5-A7
This preparatory and post test is designed to evaluate learning associated with this field study experience, not the entire science unit. For maximum benefit, students should do this activity first and again after the field trip. By comparing the changes in their scores, it's possible to gain insight to the impact of the field excursion on learning.

Wild Webs

RESOURCE: Appendix p.A8
In this activity students can experience the interconnectedness of organisms in a Wetland ecosystem :

- Print or reproduce the list of organisms in a wetland and cut them into individual pieces with one organism on each piece of paper
- Give each student a piece of string approximately 1 metre long and have them hold one end
- Give each student one of the organisms. Duplicate or create new organisms if there aren't enough.
- Instruct the student to find another organism their organism has a connection to and take the other end of that string. A complex web will form!

Dragonflies and Frogs

This game (adapted from Joseph Cornell "Owls & Crows) offers a good organisational format that can be used repeatedly with a wide variety of topics. Once they understand how the game is played the format can be used to teach and informally evaluate many topics.

Divide the group into two equal teams, the Dragonflies and the Frogs. Have the teams line up along a line facing each other. About 3 metres behind each team designate a "home base" area for that team.

Make a wetlands related statement out loud. If the statement is true the Dragonflies chase the Frogs trying to catch them before the they can reach their home base. If the statement is false Frogs chase the Dragonflies. Anyone that is caught before reaching their home base must join the other team.

If the students are not sure of the answer Dragonflies and Frogs may run towards each other. Remain silent and neutral and reveal the answer once the students settle.

Wetland Metaphors

This activity will help students to understand how wetlands function to clean and control water that flows through them. Gather the following objects/pictures and have students make a list of how a wetland is like each object:

- sponge - *absorbs and retains water and moisture*
- pillow/bed - *resting place for migratory birds*
- mixer/egg beater - *mixes nutrients and oxygen into water*
- cradle - *nursery that shelters and protects young wildlife*
- sieve/strainer - *strains silt, debris etc. from water*
- antacid - *neutralizes toxic substances*
- cereal/snack bar - *provides nutrient rich foods*
- soap - *helps cleanse the environment*

Your Day At the Park

FIELD TRIP ACTIVITY SUMMARY

The following outdoor field trip activities are curriculum-connected and intended to connect learning in an experiential way to the natural world.

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1 Pond Study

Facilitated by an environmental educator for half of the day.

Activity Summary: The class will walk to the pond study area with the parks educator, where they will collect, examine and return invertebrates to the water. Particular attention will be paid to adaptations and interactions.

- Students will observe different swimming techniques, ways of breathing, and animals interacting.
- Students will observe life around the pond's edge. They will learn that a wetland ecosystem involves interactions between living and nonliving things, both in and around the water.
- Students will identify plants and animals, examining special adaptations they have to survive in a wetland.

2 Land Study

Completed in small, adult volunteer led groups for half the day.

Activity Summary: Students will explore the upland and riparian areas of the wetland ecosystem on this walk. They will observe and record the many components of an ecosystem, watching for animals, plants and insects and exploring how they interact with each other in this ecosystem. They will also consider how human impact affects the Park.

- Students will understand that a wetland ecosystem is part of a greater ecosystem that includes interactions between living and nonliving things. Students will explore the Riparian (riverside) area, observing plants and animals, while examining interactions and adaptations.

Be sure to divide each class into 5 smaller groups and assign an adult volunteer to each group.

PROGRAM EQUIPMENT

The Learning Centre will provide your students with the following equipment and resources to utilize during the pond study portion of the day.

1 Aquatic Invertebrate Identification Sheets

These keys will be used by students to identify the diversity of species that they find in the wetland.

2 Magnifying Boxes and Viewers

Students will use the magnifying equipment to closely examine physical and behavioural adaptations of aquatic invertebrates.

3 Dip nets

Students will use dip nets to capture insects and other invertebrates from the water.

All equipment must be returned prior to departure.
PLEASE NOTE: There is an additional fee for broken or missing equipment.

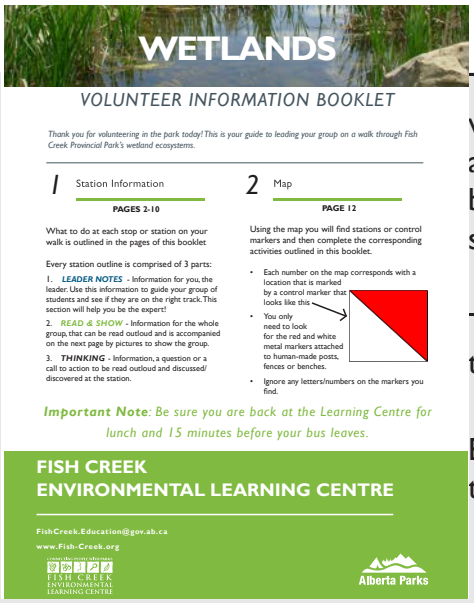
4 Buckets

The white buckets are used to store aquatic species that are captured and provide a "mini-wetland" ecosystem for the students to study.

Students can be given time at the wetland to sketch the invertebrates from the bucket and record their findings. Please inform your park educator ahead of time if you would like students to have time to record findings.

INFORMATION BOOKLETS

The Learning Centre will provide your adult volunteers with an information booklet that contains an outline and detailed explanation of the Land Study, which they will lead their smaller group of students on.



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.

After Your Field Study

POST 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.

Food Chain Mobiles

Have the students create cards about wetland organisms (including plants) with the following information:

- species name
- images for size reference
- unique adaptations
- survival requirements
- role in the food chain or ecosystem

Once students have created complete sets of cards ask them to complete some challenges with the cards such as:

- Group all the producers, consumers and decomposers
- Create an ecosystem pyramid with the cards
- Arrange your cards to show how the wetland ecosystem would change if all the plants were removed.

Finish this activity by creating mobiles that represent the food chain out of the cards students have made.

Underwater Art

Ask the students to create some artwork that reflects an aspect of the field study using whatever medium they wish (crayon, paint, pastel, collage, etc).

Fill plastic re-sealable bags that are approximately the same size as the pieces of art with water so that when all the air is removed and it is sealed, it is about 2 cm - 3 cm thick.

Place the student artwork behind this re-sealable plastic bag and cover both with a mat-board frame and hang on the wall.

Movement in the water will create an interesting effect for the picture behind it.

Scenario Debate

Using the scenarios provided below have class debates. Making the students take a stand on the issues will help them to realize how complicated the issues can be. Introduce the scenario. Through a class discussion, describe the following:

- What is the issue?
- Who are the players?

Scenario 1: *Farmer Jones has a very large marsh on his property. He wants to drain it so he has more land that can grow crops. He says this is necessary because low grain prices have reduced his income. He must pay his bills or the bank will foreclose on his farm. Many of Farmer Jones neighbours oppose his plan. Jones' marsh is the only wetland area for kilometres around. It is an important habitat, especially for waterfowl. Many species nest at the marsh. Migrating birds use it for a feeding and resting stop. His neighbours also point out the birds help the farmers by eating many insects.*

Scenario 2: *A paper company wants to build a new pulp and paper mill in a small community. It will provide 400 new jobs. The increased money being spent in the area will help the economy of the entire town. However, it will increase chemicals and noise pollution.*

Appendix

WETLAND VOCABULARY

Adaptation: A physical structure or behaviour which helps an organism survive.

Community: All the organisms living together in a certain area which can include any number of different populations. e.g. spruce trees, woodpeckers, red squirrels

Consumer: Organisms that obtain their energy by eating other organisms.

Decomposer: An organism that breaks down organic material such as the remains of dead organisms.

Ecosystem: A community of organisms interacting with their environment, including non-living elements such as soil and water.

Emergent plants: Plants that are rooted in the soil underwater but their leaves and stems extend out of the water.

Environment: The total of all surrounding influences which affect the life and development of organisms, including air, water, soil and weather.

Food chain: A set of producer and consumer relationships within a group of living things.

Food web: The relationships among all the food chains in a community; an interlocking pattern of food chains.

Habitat: Where an organism lives and meets its needs for food, water, shelter and space.

Interaction: Relationship or action occurring between two or more organisms.

Organism: Any plant or animal; a living being with organized structure.

Population: Organisms of the same species living and reproducing in the same place.

Precipitation: Any liquid or frozen water that forms in the atmosphere and falls to the earth.

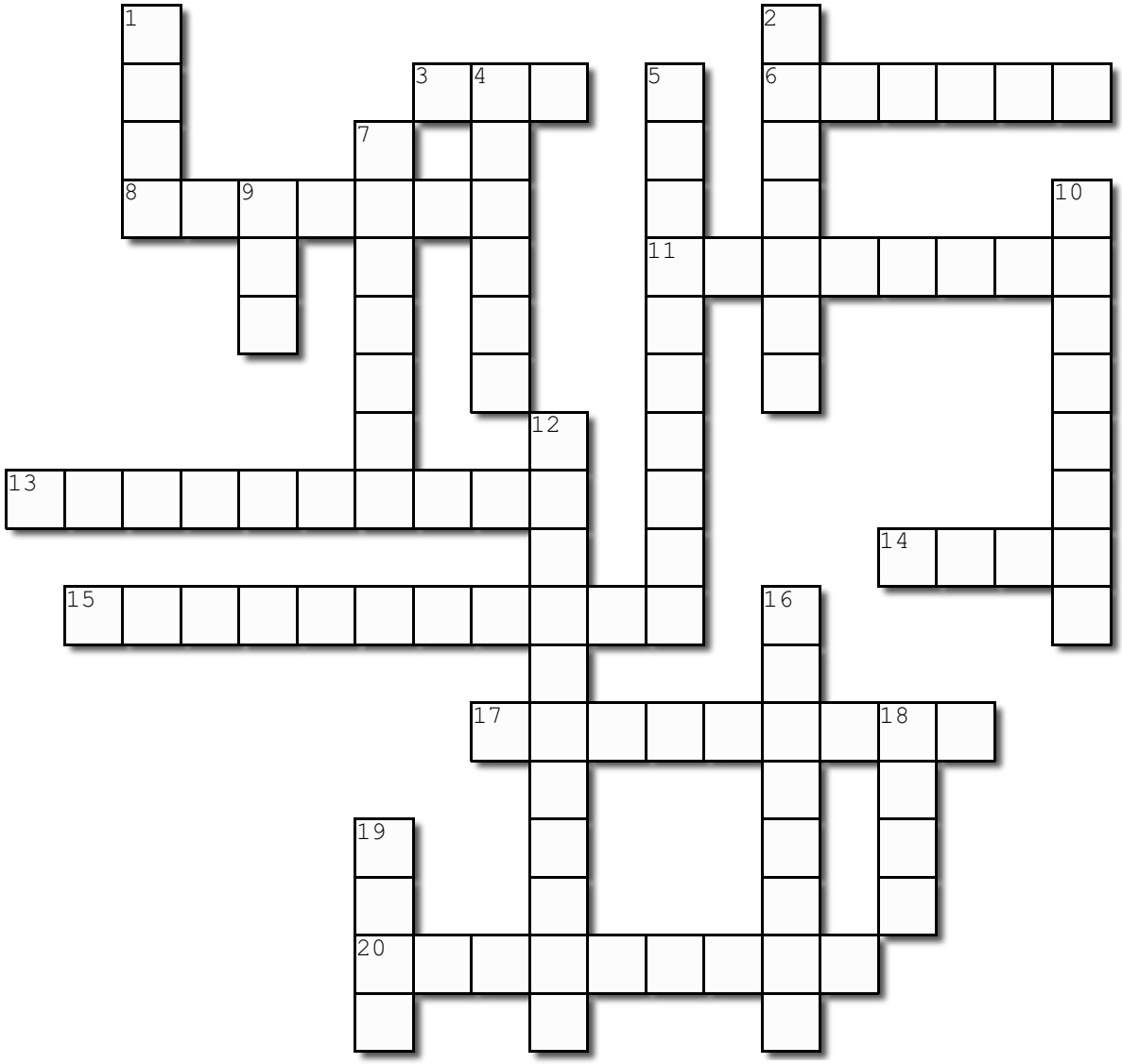
Producer: An organism that makes its own food using sunlight, water, carbon dioxide and inorganic substances.

Submergent plants: Rooted plants with most of their vegetative mass below the surface of the water, although small portions may stick out above the water.

Turbid: Cloudy, opaque, or thick with suspended matter.

Watershed: A land area that channels precipitation into creeks, streams, and rivers, and eventually to outflow points such as lakes and eventually oceans.

WETLANDS CROSSWORD



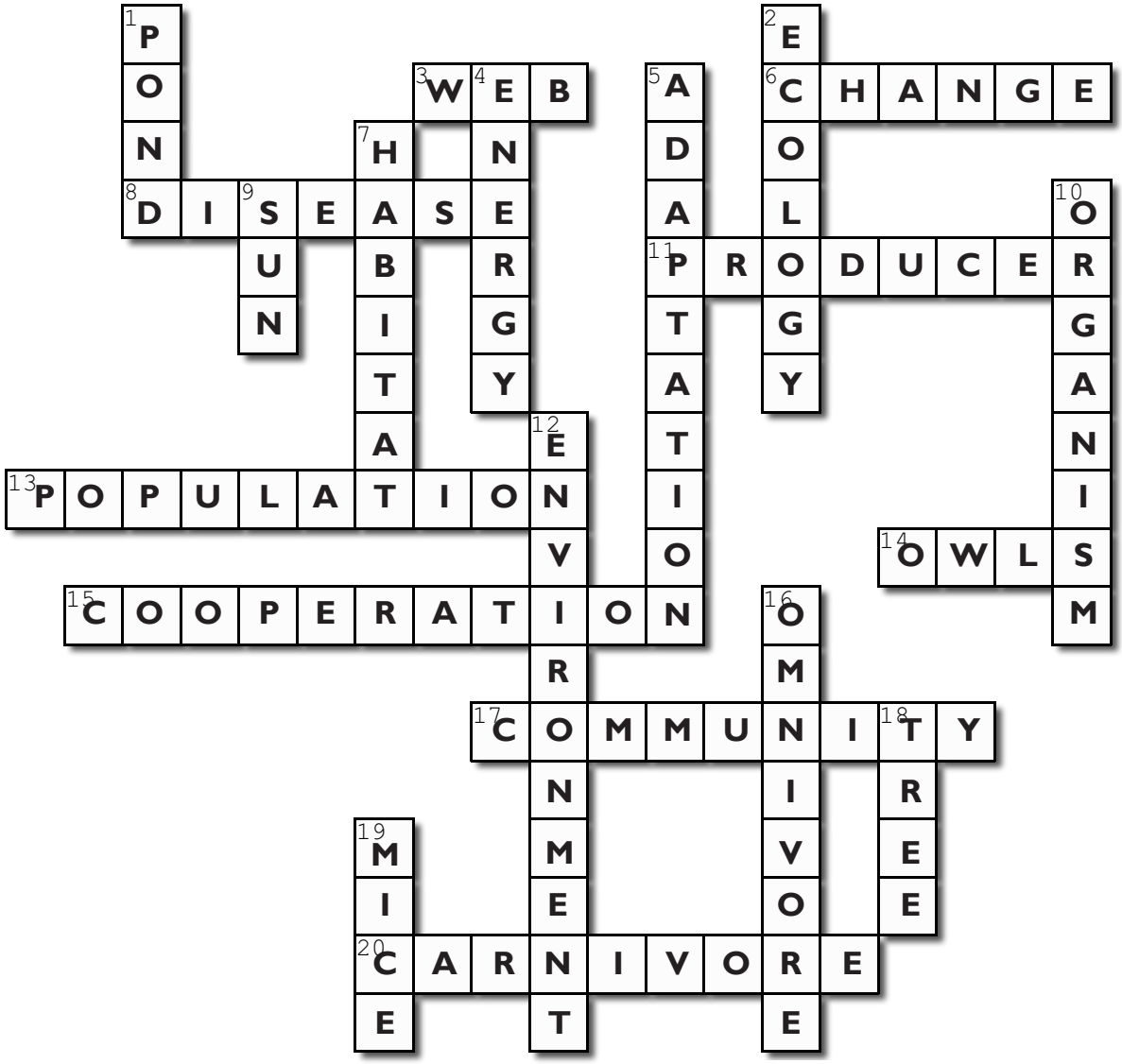
ACROSS

3. A Spider may spin one.
6. To alter or make different.
8. Illness or sickness.
11. An organism that makes its own food.
13. Organisms of the same species living together in the same place.
14. Birds that mostly hunt at night.
15. Working together for joint benefit.
17. All the organisms living together in a certain area.
20. Any meat eating animal.

DOWN

1. A small, usually circular, open body of water.
2. The study of relationships between organisms and their environment.
4. Strength or power.
5. A special characteristic that helps an animal to survive.
7. Where an organism lives.
9. Provides warmth and light.
10. Living thing.
12. All the surroundings that effect an organism.
16. Any animal that eats both plants and animals.
18. Balsam polar is a type of deciduous ...
19. Small rodents that owls may hunt.

WETLANDS CROSSWORD ANSWER KEY



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WETLANDS WORD SEARCH

R P S J C I M N I A H C Y F R X C K N V
I S G L D S K F O M C Z H O N U F L E D
Y C R E E K E M W C T R C R R F I R E L
H G W M F D N A S T A H V E E A O I U N
Q C A P X I R E G P P R E S K F S W P O
O W T C V S J H E L Y D N T G Q I X L I
E C E O A E Z E Y D A D T I L E G L X T
J E R B X A T O N P S R L A V T K W Y A
I E N A P S E P M O I T O Q C O J A Z T
W H F V R E R C N A I U S Y A Y R M Z P
X T O E I M P Y O Q N T J Y A O T E B A
D U C S U R P I Q L W C A E H C I N B D
F H S X A K O M L H O W D L R S F K B A
L G G A S F E N Z M E G C H U X L V E Z
N O I T I T E P M O C J Y W U P A E W X
G L F A D Q T U N E B M A T X J O Z Z H
X E K B A F N R C A N C J R D I Q P G S
R S H F L I H I N O I T A R E P O O C J
E U K G T S T M A R S H N Y G R E N E V
D H R Y C H Q X G W B J W D O I D C G E

ADAPTATION
AIR
ALGAE
BAT
CARNIVORE
CHAIN
COMMUNITY
COMPETITION
COOPERATION
COYOTE
CREEK
DEER
DISEASE
ECOLOGY
ENERGY
ENVIRONMENT
SCUD
FIRE
NICHE
FISH
FOREST
WATER
POPULATION
OMNIVORE
ORGANISM
LIFE
MARSH
NEEDS

WETLANDS QUIZ

Name _____ Date _____

1. How would you describe a wetland to someone who has never seen one before?

_____

_____

2. List THREE ways that wetlands help the environment.

a)_____

b)_____

c)_____

3. Describe ONE way that YOUR CLASS could help teach people about wetlands in the Calgary area.

_____

_____

_____

4. List THREE living things and THREE nonliving things that you can find in wetlands.

Living Things	Nonliving Things
a)_____	_____
b.)_____	_____
c)_____	_____

5. Read the following questions, circle the number that best describes what you think and answer the questions below.

a) I think wetlands are really important for humans and animals.	not really		really		absolutely
	1	2	3	4	5

Why/how? _____

b) I would like to help protect wetlands.	not really		really		absolutely
	1	2	3	4	5

How? _____

c) I would really like to visit a wetland, in my neighbourhood or somewhere else.	not really		really		absolutely
	1	2	3	4	5

Where? _____

6. Imagine you are trying to describe a wetland to someone who has never seen on before.

Draw and label a picture of a wetland, including as many parts as you can think of including plants and animals and nonliving things.

WETLANDS QUIZ ANSWERS

1. How would you describe a wetland to someone who has never seen one before?

   A wetland is an area with soils that hold water, where water levels can change a lot throughout the year, and can have many kinds of water loving plants and animals.

2. List THREE ways that wetlands help the environment.

   a) They filter pollutants out of water runoff
   b.)They provide habitat for many species of plants and animals
   c.)They hold water - this can help to prevent floods or drought

3. Describe ONE way that YOUR CLASS could help teach people about wetlands in the Calgary area.

   Answers will vary - they may include making posters, sharing research projects, informing the media (radio, newspapers, television), creating newsletters or a website, raising money for conservation organizations…

4. List THREE living things and THREE nonliving things that you can find in wetlands.

Living Things	***Nonliving Things***
a.) Plants	***Soil***
b.)Animals	***Water***
c.) Fungi	***Rocks and Minerals***

5.

a) I think wetlands are really important for humans and animals.	not really 1	2	really 3	4	absolutely 5

Why/how? ***They hold and clean the water, they are excellent habitat***

b) I would like to help protect wetlands.	not really 1	2	really 3	4	absolutely 5

How? ***Talking with people about responsible wetland use, joining community projects***

c)I would really like to visit a wetland, in my neighbourhood or somewhere else.	not really 1	2	really 3	4	absolutely 5

Where? ***In a city or community park, a constructed wetland, a pond near cabin, etc.***

WILD WEBS

Backswimmer	**Blue Heron**
Muskrat	**Water Mite**
Red-winged Blackbird	**Dragonfly**
Willow	**Coyote**
Fireweed	**Pond Lily**
Deer	**Horse Tail**
Flowering Rush	**Water Spider**
Frog	**Mayfly**
Mallard Duck	**Hawk**
Yellow Pond Lily	**Salamander**
Snail	**Duckweed**
Snake	**Mosquito**

WETLANDS

A Field Study for Grade 5 Students

STUDENT JOURNAL

www.Fish-Creek.org

Alberta Parks

Name: _____

Date: _____

Station #1: Types of Wetlands

Fill in the blanks in the table about the different types of wetlands in Alberta:

	Bog	**Fen**	**Marsh**	**Swamp**	**Shallow open water**
Water Source	Mostly precipitation		Groundwater, surface water (rivers), precipitation	Seasonally flooded rivers and creeks	
Common Plants		Sphagnum and peat mosses			Grasses, sedges

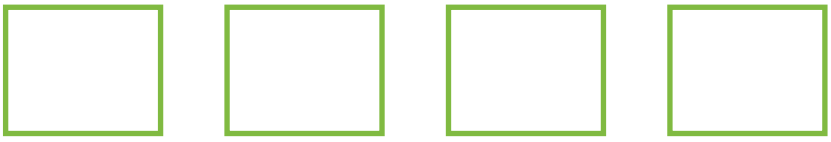
Station #2: Where the Water Flows

What sounds could you hear made by living things? What are sounds made by non-living things?

Living:

Nonliving:

What are the four types of precipitation? Draw a symbol below of each type and label it.



How can we measure levels of precipitation?

Station #3: Human-made Wetlands

Make a list of as many of things you can think of that could get into the water from the surrounding neighbourhoods.

- *Fertilizer from the gardens surrounding Fish Creek Provincial Park*
-
-
-

Station #4: Wetland Habitat

Make a list of the animals that live in this area and identify what they were doing (identify the evidence they left behind, such as signs of feeding, tracks, bones, homes or poop!).

- *Woodpeckers- large holes in the trees*
-
-

Station #5: Human Impacts.

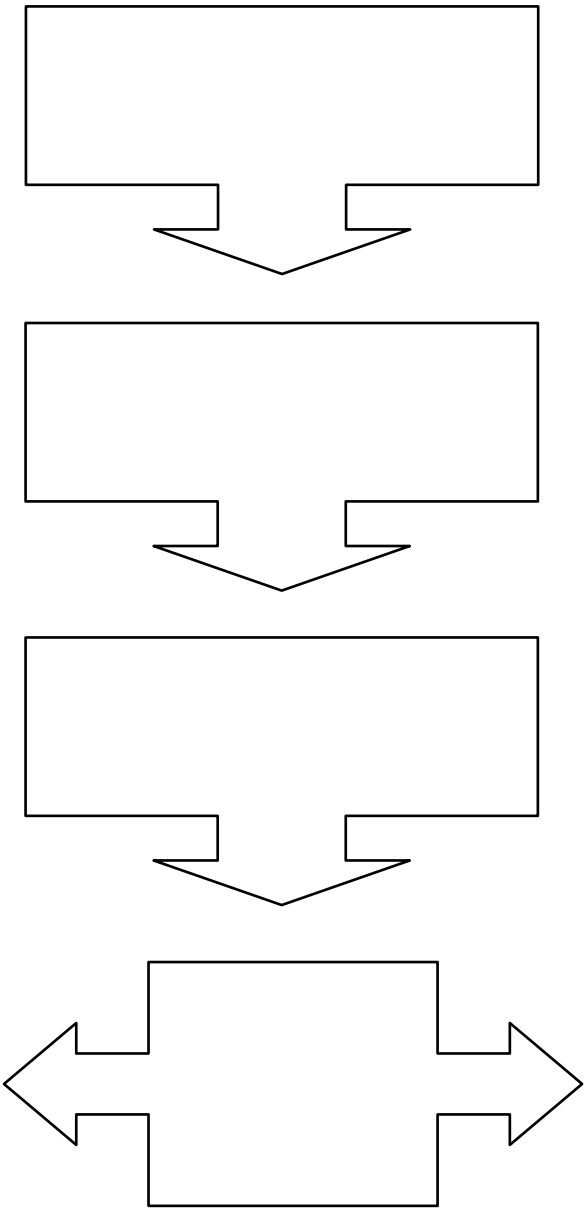
Complete the table below.

Human actions that threaten the survival of plants and animals in the park	**How do these actions affect the plants and animals in the park?**
Visitors leaving their pets' waste in the park	*Coyotes eat the pet waste, passing disease to the wildlife population*

What is one thing that you could do at home or school that would help keep wetlands healthy?

Wetland Food Chains

Using as much detail as possible, illustrate a food chain using only plants and animals that you observed in the pond today. The arrows show us the flow of energy through our food chain. Use the guides provided to help you decide which are producers, primary consumers, secondary consumers and decomposers.



Plants produce their own food, so they are called PRODUCERS

Animals can't make their own food, so they are called CONSUMERS

If an animal eats only plants it is a PRIMARY CONSUMER

If an animal eats only animals it is a SECONDARY CONSUMER

When plants and animals die, they are broken down by DECOMPOSERS, which can be tiny (like bacteria) or quite big (likes worms)

Adaptations

An ADAPTATION is a change to a plant or animal body or behaviour that helps it to survive. We can observe these adaptations using our microboxes! Using as much detail as possible, draw and/or describe the adaptations of each of these wetland animals.

Backswimmer

Water strider

Snail

Dragonfly nymph

Your Discovery

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 on-site 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,

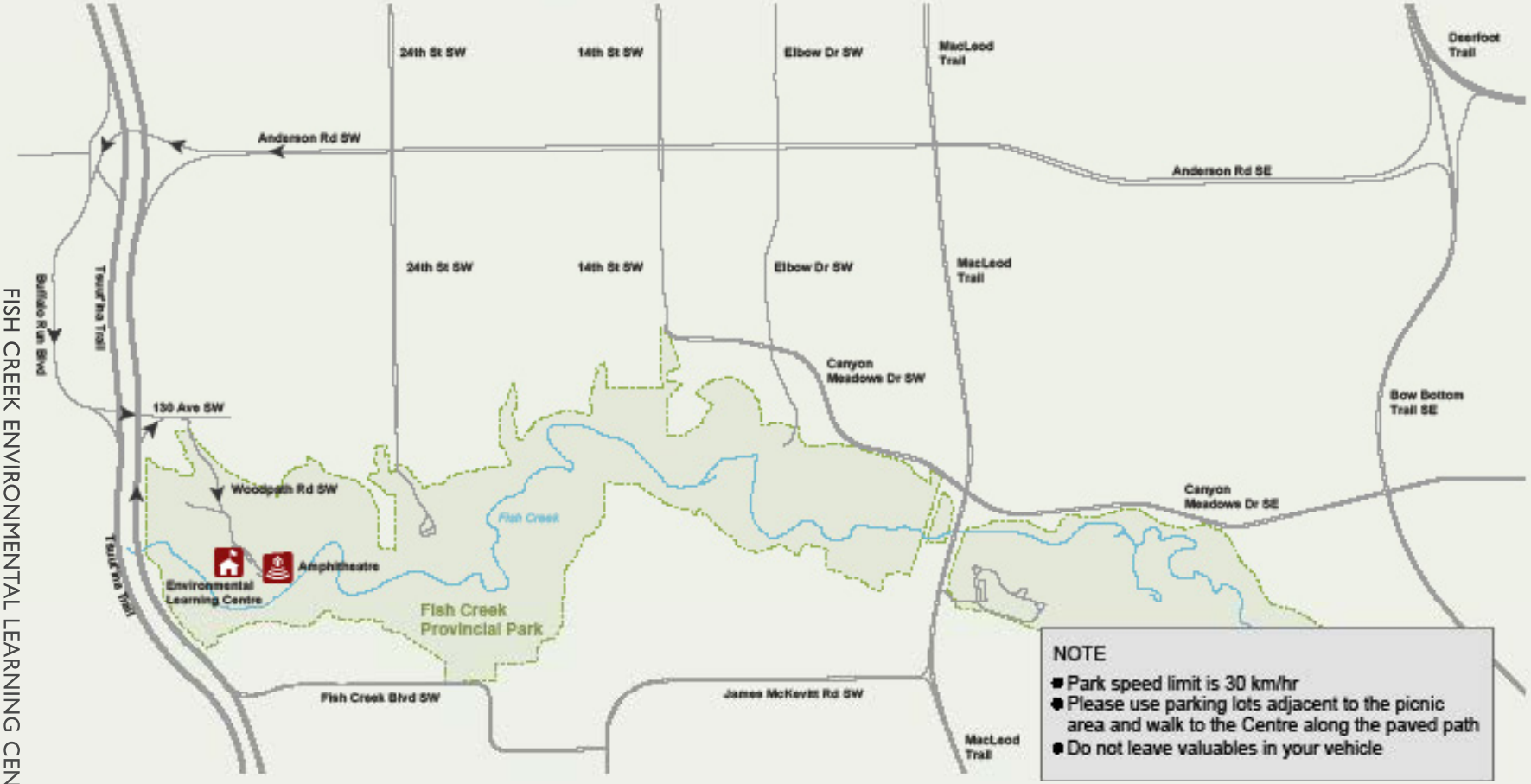
Environmental Education Team

CONNECTING PEOPLE WITH PARKS
FISH CREEK ENVIRONMENTAL

Alberta Parks

Access Map - Fish Creek Environmental Learning Centre

13931 Woodpath Road SW, Calgary, Alberta



NOTE

- Park speed limit is 30 km/hr
- Please use parking lots adjacent to the picnic area and walk to the Centre along the paved path
- Do not leave valuables in your vehicle

DIRECTIONS

From Anderson Rd SW heading west:

- Follow signs to Tsuut'ina Trail and follow exit onto Buffalo Run Blvd

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

N

0 200 400m