WETLANDS

A Park Staff-conducted field study for Grade 5 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 *Topic E:Trees and Forests* from the Grade 6, Alberta Elementary Science Curriculum 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.

3

7

Table of Contents

FACILITY & RULES

- The Facility
 - Lunch Break Procedures 4

BEFORE THE VISIT

- Preparation Materials
 5
- Orientation Videos
 6
- Pre-field Trip Activities

PARK ACTIVITIES

- Program Equipment
 8
- Information Booklets
 9
- Field Trip Activities



POST-FIELD TRIP

Post-field Trip Activities

RESOURCES

- Preparation Checklist I2
- Parent Recruitment Letter 13
- Wetland Vocabulary
 I4
- Field Trip Quiz
- Field Trip Quiz Answers 17
- Crossword Sheet
 I8
- Crossword Clues
 19
- Crossword Answers 20
- Word Search Sheet 21
- Word Search Terms 22
- Field Trip Worksheets 23
- Food Chains 25
- Adaptations Worksheets 26

MAPS

- Access map 24
- Map of program trails 25

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 and pond wetlands and disturbed (urban) areas.

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

- I. 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.





Return to Table of Contents

LUNCH 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

I. Preparation Checklist

A full, detailed teacher checklist for your field trip preparation is available at the back of this resource package or by clicking HERE. These are general guidelines to assist you in planning your field trip.

2. 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.



3. 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 Orienta- tion (10-15 minutes)	Overview of self-guided wetland scavenger hunt for parent volunteers while students eat snack.
Educational Activities	GROUP 1: Staff-led pond dipping GROUP 2: Parent-led Wetland Scavenger Hunt
LUNCH BREAK	Environmental Educator will circulate and answer questions, show nature biofacts and ensure that the program is going smoothly.
Educational Activities	GROUP 1: Staff-led pond dipping GROUP 2: Parent-led Wetland Scavenger Hunt
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.

Orientation Videos

Attending a teacher orientation prior to your class visit is essential for familiarizing yourself with the facilities and the surrounding trails. Returning teachers are not obligated to attend the workshop, but are certainly welcome to come for a "refresher" course. 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.

Teacher Orientation Video

Prepare yourself by watching a brief video about field trip logistics, resources and helpful tips.

If you have any additional questions, comments or concerns about the field trip after watching the video, please contact the Environmental Educator.

2

Parent Orientation Video

Whether your program is a guided hike with our Education staff, a custom program or a teacher-led field study, parent volunteers are an essential part of our programs.

When recruiting volunteers, please ensure that the adults are aware that they will be outside in the park for a majority of the day. Knowledge of nature is not a requirement, but ability to supervise and work with students is key.



Student Orientation Video

Prior to your field trip, you can show your students the orientation video that reviews proper field trip attire and the role of parks in Alberta.







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.



Vocabulary Worksheet:Yes

Review science vocabulary with the class. This could be done in any number of ways:

- Words could be incorporated into the weekly spelling quiz
- The terms can be introduced through games such as ECO CROWS AND CRANES
- Photocopy the crossword puzzle at the back of this package. Distribute to the students. A fun way to test their knowledge!

Prepatory and Post Test Worksheet:Yes

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.



Mystery Species Worksheet: No

Provide the students with a list of possible plants and animals found in a wetland ecosystem and ask each student to select one. Be sure nobody knows anyone else's species.

Ask each student to prepare four clues about the wetland species that progress from general information, with the first clue, to more specific information with each subsequent clue.

Invite the class to guess what species it is based on the clues.



Eco Crows and Cranes Worksheet: No

This game offers a good organizational 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.

Ask the students to find a partner and stand facing each other along a line you have designated. Designate one side as the "true" side and the other as the "false" side.

Explain that you will make a statement. If the answer to the statement is true, then the "true" side chases the "false side for 5 metres. If they tag someone that person comes over to their side. If the answer to your statement is false, then the opposite happens, the "false" side chases the "true" side for five metres.

Prepare 10 statements that mix up the true and false answers and play the game. This game offers a good informal assessment tool. If both groups run in opposite directions, or run into each other or don't move at all, you know there is a problem with the concept in the statement you just made.



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 Grade 5 Wetlands program, your students will be provided with the following:

Aquatic Invertebrate Identification Sheets

These keys will be used by students to identify the diversity of species that live inside the wetland.



Magnifying Boxes and Viewers

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



Dipnets and Buckets

Students will use dipnets along the side of the dock to capture insects and other invertebrates from the wetland.

The white buckets are used to store aquatic species 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.

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.

Each page of the information booklet will have guiding questions on the bottom to help facilitate curriculum-connected discussions and inquiry.

NEW to our programs, these booklets will be printed and laminated for your field trip use. A copy of the Information Booklet was provided to you at the time of booking. If you have not received the booklet, please ask us to resend it.

Important Notes:

- Please do not print these booklets for your adult chaperones. By providing laminated copies, we hope to reduce the amount of wasted paper.
- Please do not distribute the information booklet PDFs to other teachers. These resources are developed for use within our programs.
- 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.



Pond Study Worksheet: No

- Students will understand that a wetland ecosystem involves interactions between living and non-living, both in and around the water.
- Students will identify some plants and animals, examining some of the special adaptations they have to survive in a wetland.

Activity Summary: The class will move to the pond study area with the Wetland Educator, where they will collect, examine, record and return the 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, as a healthy pond requires a healthy shoreline.



Land Study Worksheet: Yes

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 some plants and animals, while examining interactions and adaptations.

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.

Be sure to divide class into 5 smaller groups with a minimum of one adult volunteer per group of 6 students.

The Pond Study will be facilitated by the Environmental Educator for half of the day. The Land Study will be completed in small, parent led groups for the remaining part of the field trip.

Post-field Trip Activities

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

Food Chain Mobiles Worksheet: No

This activity summarizes the plants and animals found at the wetland and provides an opportunity to play some fun and challenging games with props and materials developed by students.

Review all the plants and animals found at the wetland. Have the students create cards with the following information:

- species name
- images for size reference
- unique adaptations
- survival requirements (what specific needs does it require to survive)
- role in the food chain or ecosystem

Once students have created complete sets of these cards for the wetland ecosystem challenge them with a few questions such as the following:

- 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.
- Arrange your cards to show how the wetland ecosystem would change if the water content was doubled.

Finish this activity by creating mobiles out of the cards students have made. These mobiles should represent the food pyramid that exists in the wetland ecosystem.

Pond Exploration Worksheet: No

Direct the students select one plant and one animal to research. Reports should include adaptations, interactions and the life cycle of the organism.

Underwater Art Worksheet: No

This activity uses water, re-sealable plastic bags, picture frames or mat-board and student art to create an interesting artistic effect.

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). These should be the same size as the plastic re-sealable bags they are using. Fill this re-sealable plastic bag 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 resealable plastic back and cover both with a matboard frame and hang on the wall. Movement in the water will create an interesting effect for the picture behind it.

Scenarios Debate Worksheet: No

Using the scenarios provided 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?

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.

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.

Planning your Field Study in the Park: Teacher Checklist

Give every driver—including the bus driver—a copy of the route map. Make sure all drivers know you are coming to the west end of the Park, near Woodbine!

Prepare yourself

- Read the teacher package thoroughly: phone 403-297-7926 if you have any questions.
- Modify the activities to fit your lesson plans, students' skill levels and time in the park
- Check student health forms, looking for allergies to bee/wasp stings.

Prepare the students

- <u>Discuss how Fish Creek Provincial Park is a wild environment</u>. Discuss the difference between wild and tame animals and environments (coyotes vs. pet dogs, Fish Creek Provincial Park vs. school yard, etc.)
 - 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.
- <u>Discuss behavioural expectations</u>. 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 mindfullness. When leaving the trails to
 - complete program activities take care to minimize your impact.
- 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.
 - Leave dead branches on the ground: they do not make safe walking sticks.
- Discuss what to wear on the field trip
 - Hats, sunscreen, insect repellent.
 - Runners (not sandals).
 - Dress in layers: the forest can be cool in the morning.
- 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

- Please follow the recommended ratios as outlined in your school board regulations. Divide your class into working groups.
- Review the park rules with the adults, send the link to the orientation video.
- Emphasize the following: there is nowhere to buy anything anything here, including coffee.
- The adults' role is to lead the activities with the same small group of students all day..

Bring

- A cheque made payable to the Government of Alberta for \$7.00 per student (no charge for adults).
- Student booklets (or journals), pencils.
- A few bandaids with each adult and your first-aid kit.

Dear Adult Chaperone,

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)
- Take a minute to watch this **orientation video here**

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 science expert, but a positive attitude goes along way!

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

Environmental Education Team





Wetland Vocabulary

adaptation: physical structure or behaviour which helps an organism survive in the ecosystem it lives in.

carnivore: organism that eats animals.

<u>community</u>: all the organisms living together in a certain area. Can include any number of different populations. e.g. spruce trees, woodpeckers, red squirrels

consumer: organisms that obtain their energy by eating other organisms.

<u>ecology</u>: the scientific study of the relationships between organisms (including humans) and their environment.

<u>ecosystem:</u> a community of organisms interacting with its environment, including non-living elements such as soil and water.

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

<u>food chain</u>: a set of producer and consumer relationships within a group of living things, starting with the sun and moving from the producer to the decomposer.

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

habitat: where an organism lives.

herbivore: an organism that eats plants or their products.

interaction: relationship or action occurring between two or more organisms.

omnivore: organisms that eat both plants and animals.

organism: any plant or animal; a living being with organized structure.

population: organisms of the same species living and reproducing in the same place.

predator: an animal that hunts and eats other animals for food.

prey: an animal that is hunted and eaten by other animals.

<u>producer</u>: an organism that makes its own food using sunlight, water, carbon dioxide and inorganic substances

Wetland Ecosystems

Name	Date
I. How would you describe a wetland to	someone who has never seen one before?
2. List THREE ways that wetlands help the a)	e environment.
c)	
3. Describe ONE way that YOUR CLASS Calgary area.	could help teach people about wetlands in the
4. List THREE living things and THREE nor	n-living things that you can find in wetlands.
Living Things	Non-Living 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 I 2	really 3 4	•
Why/how?			·····
b) I would like to help protect wetlands.	not really I 2	really 3 4	absolutely 5
How?			
c)I would really like to visit a wetland, in my neighbourhood or somewhere else.	not really I 2	really 3 4	absolutely 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 non-living things.

Wetland Ecosystems Answers

I. 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 non-living things that you can find in wetlands.

Living Things	Non-Living Things	
a.) Plants	Soil	
b.)Animals	Water	
c.) Fungi	Rocks and Minerals	

5.

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

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

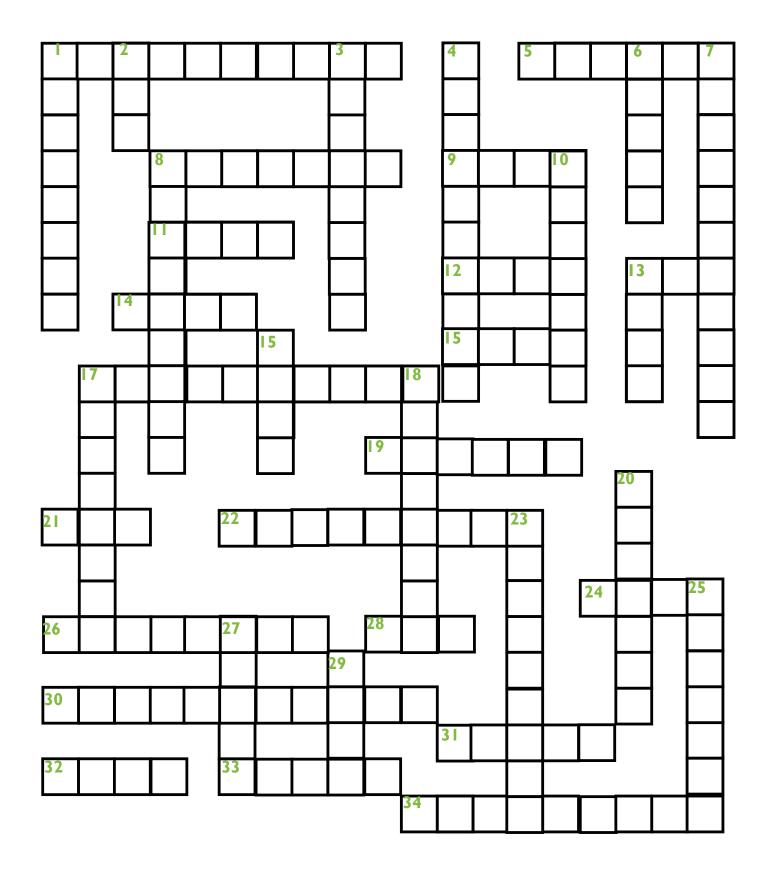
b) I would like to help protect wetlands.	not	really	rea	lly	absolutel	у
	I	2	3	4	5	

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

c)I would really like to visit a wetland, in	not	really	rea	lly	absolu	utely
my neighbourhood or somewhere else.	Ι	2	3	4	5	

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

Wetland Crossword



Wetland Crossword Clues

CLUES ACROSS **CLUES DOWN** I. organisms of the same species living together in the I, animal that hunts other animals same place 2. baby coyote 5. to alter or make different 3. each plant and animal is an 8. where an organism lives 4. a change to help an organism survive is an... 9. a small, usually circular body of water 6. a place an organism holds in its ecosystem I. the function an organism fills in its ecosystem 7. all the surroundings that affect an organism 12. balsam poplar is a deciduous... 8. any animal that only eats plants 13. opposite of woman 10. illness or sickness 14. to roast marshmallows you need a 13. small rodents some people have for pets 16. birds that hunt at night 15. animals that are hunted by other animals 17. working together for joint benefit 17. any animal that obtains food by eating 19. strength or power other organisms 21. all our planets revolve around the _____ 18. any animal that eats both plants and animals 22. any meat eating animal 20. a triangular, shaped solid object

23. a community of organisms interacting with its environment

25. the study of relationships between organisms and their environment

27. a series of interlocking links

29. a very strong breeze

32. another word for dirt

31. liquid ice

33. animals have basic_____such as water and food

30. relationship of one organism to another

24. a snowshoe _____ turns white in winter

26. organism that makes its own food

28. a spider may spin a _____

34. all the organisms living together in a certain area

Wetland Crossword Answers

CLUES ACROSS I. organisms of the same species living together in the same place **POPULATION**

5. to alter or make different CHANGE

8. where an organism lives HABITAT

9. a small, usually circular body of water **POND**

II. the function an organism fills in its ecosystem **ROLE**

12. balsam poplar is a deciduous...**TREE**

13. opposite of woman **MAN**

14. to roast marshmallows you need a FIRE

16. birds that hunt at night OWLS

17. working together for joint benefit **COOPERATION**

19. strength or power **ENERGY**

21. all our planets revolve around the SUN

22. any meat eating animal CARNIVORE

24. a snowshoe ____ turns white in winter HARE

26. organism that makes its own food **PRODUCER**

28. a spider may spin a _____ WEB

30. relationship of one organism to another **INTERACTION**

31. liquid ice **WATER**

32. another word for dirt SOIL

33. animals have basic_____such as water and food **NEEDS**

34. all the organisms living together in a certain area **COMMUNITY**

CLUES DOWN I. animal that hunts other animals **PREDATOR**

- 2. baby coyote **PUP**
- 3. each plant and animal is an ... ORGANISM

4. a change to help an organism survive is an... **ADAPTATION**

6. a place an organism holds in its ecosystem **HABITAT**

7. all the surroundings that affect an organism **ENVIRONMENT**

8. any animal that only eats plants **HERBIVORE**

10. illness or sickness **DISEASE**

13. small rodents some people have for pets **MICE**

15. animals that are hunted by other animals **PREY**

17. any animal that obtains food by eating

other organisms **CONSUMER**

18. any animal that eats both plants and animals **OMNIVORE**

20. a triangular, shaped solid object **PYRAMID**

23. a community of organisms interacting with

its environment **ECOSYSTEM**

25. the study of relationships between organisms and their environment **ECOLOGY**

27. a series of interlocking links CHAIN

29. a very strong breeze **WIND**

Wetland Word Search

NE MNOR В Т ΑT L V N E н А L Е 0 Ε Ν Т I Т Ρ Μ 0 С А I R E 0 L F R F S Ν н Ε Е F т О 0 D Α С R O S Ρ R R S В Z Е н А н т С L O L C Ε S Е н S Е R 0 Е D Т L 0 С н L I Е Ε Е R Е М F Т L 0 Ε А M v L Y А S S U Е А G В О D Υ 0 0 0 G G L I W Е S Ν Ν S А R М R Т Ρ G Ν I Ν L Е Ν Ν Α А А Е Ε R R А R Α Т 0 Y O S R н Ν т D М L А О U Ο D V O I L Е F Е А R Е G М С L Т F С С I I Т S G С R Ν R Т Ρ D 0 D Α O Υ С L V Е Y F н т 0 А U G O L Υ I т О R L F Е А Ν Ν R O R А А С V О D U U Т Е S т А Е R 0 I Ν D D А т Ν 0 S Ρ F Ν F R Ε U Т L Е А Ν А U R 0 L I Ρ Е Е Е S W Ν Е F R С Ν L С 0 S Ρ Κ Е S Ν т Ρ I γ Т U MM 0 CN D I

Wetland Word Search Terms	FISH
AIR	FLY
ADAPTATION	FLOOD
ALGAE	FOREST
BAT	HABITAT
CARNIVORE	HERBIVORE
CHAIN	WATER
COMMUNITY	WIND
COMPETITION	SOIL
CONSUMER	SUN
COOPERATION	SURVIVAL
COYOTE	ROLE
CREEK	PART
DEER	PLANT
DISEASE	POND
ECOLOGY	POPULATION
ECOSYSTEM	PREDATOR
ENERGY	PREY
ENVIRONMENT	PRODUCER
SCUD	OMNIVORE
FIRE	ORGANISM
NICHE	LIFE
INTERACTION	MARSH
	NEEDS
22 FISH CREEK ENVIRONMENTAL LEARNING CE	NTRE

Wetland Wonderings

Name:__

Date of park visit:

Station #1: 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?

Station #2: 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 #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: Sounds of Nature and Weather

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

Living:				
Non-living:				
What are the fou	ar types of pre	ecipitation? Dr	below of each	type and label it.

How can we measure levels of precipitation?

How could climate change impact the flow of creeks? What does that mean for people using the watershed?

Station #5: Types of Wetlands

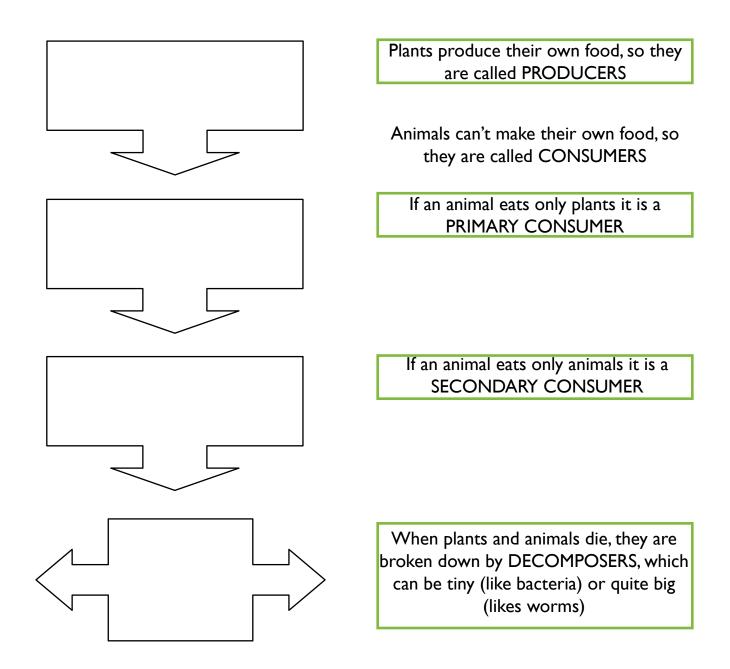
Fill in the blanks in the table about the different types of wetlands in Alberta:

	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

Wetlands- Student Data Collection Sheet

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.



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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
	1
Snail	Dragonfly nymph

Snail			

Dragonfly nymph		

Your Discovery		

