

PARKS, PEOPLE, PLANTS, AND ANIMALS

A Field Study for Grade 2 & 3 Students



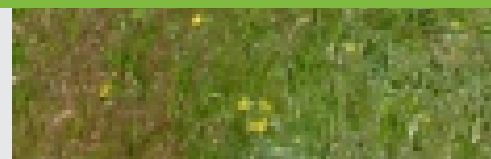
FISH CREEK
ENVIRONMENTAL LEARNING CENTRE

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 related to the grade 2 & 3 Science curriculum and principles of the Alberta Parks Formal Education Framework.

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.

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.

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.

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 and 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 your 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	Students will explore the pathways in small volunteer led groups. They will be looking for examples of plant and animal life cycle stages, animal signs, and evidence of human use.
LUNCH BREAK	
Educational Activities	Students will explore new pathways and continue to complete the activities started in the morning explorations.
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: email aep.fishcreekeducation@gov.ab.ca 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 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, Map.
- ☐ 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 lunch period.

FISH CREEK PROVINCIAL PARK: Key Messages

Please review and be sure everyone understands the following information before your visit to 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 will enhance your students experience and learning at the park.

Vocabulary

RESOURCE: Appendix p.A1

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
- Play Vocabulary Bingo. You call out the definitions and students have the words on their Bingo sheets.

People Match - Do's & Don'ts

RESOURCE: Appendix p.A4

A simple matching game to reinforce park key messages and behavioural expectations.

Food Web Game

RESOURCE: Appendix p.A2

A game where all students become connected using a ball of string to demonstrate food webs in nature. Adapted from Joseph Cornell's "Sharing Nature with Children".

What Might You Find? Seasons

What life cycle stages might you find depending on the season of your visit? Review with students what they might look for on the visit to the park regarding life cycle stages.

You may want to have students do a research project on life cycles of different plants and animals they may find in Calgary and review what time of year each stage of the life cycle may be present.

Spring - bird nests, flowers, deer fawn, baby ground squirrels

Fall - spruce cones, leaves turning colour, deer with antlers,

Winter - dried leaves, dried berries, old wasp nests in trees, trees without leaves.

Life Cycles Game

RESOURCE: Appendix p.A3

An active game where students "act" out various life cycle stages and engage in "Rock - Paper - Scissors" to mature from one stage to the next.

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. Each is completed in small adult volunteer led groups along park pathways.



People Plus or Minus

Activity Summary:

- This activity demonstrates things we can do to show care and respect for plants and animals.
- A scavenger hunt where students search for signs of how humans use and behave when visiting the park.
- Students will decide if what they find has a POSITIVE (+) or NEGATIVE (-) effect on the park and record their findings in the Student Journal.



Food Web

Activity Summary:

- Students will search for signs of animal and insect activity while exploring along the pathways.
- Students will record their findings in the Student Journal along with their ideas on what animal or insect was responsible, whether it was a herbivore, carnivore or omnivore and what it's main sources of food are.



Life Cycle Search

Activity Summary:

- Students will look for evidence of stages in plant and animal life cycles while exploring park pathways.
- Students will identify and record the stages of life cycles they find in the Student Journal. These may include things such as a bird's nest, a flower, a caterpillar, etc.
- What they find will depend on the season of their visit.

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



PROGRAM EQUIPMENT

The Learning Centre will provide your groups with the following equipment and resources to utilize during the field study day.

1

Scavenger Hunt

Seasonal theme scavenger hunts to enhance student explorations.

3

Park Partner ID Guide

Photos and descriptions of common plants, insects, birds and mammals.

4

Magnifying Glass

A tool every sleuth needs.

2

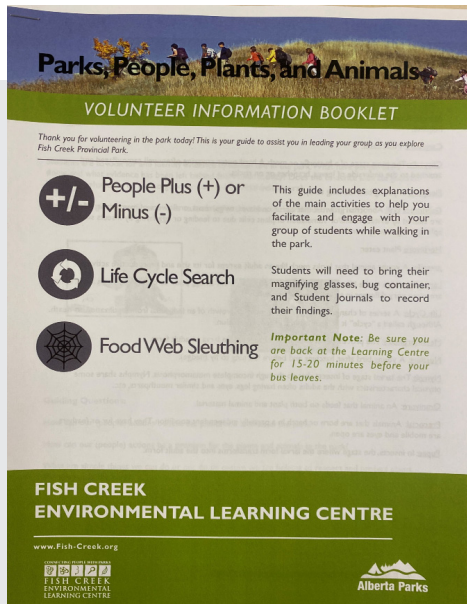
Bug Container

To capture and get a closer look at insects and spiders.

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

INFORMATION BOOKLETS

The Learning Centre will provide your adult volunteers with an information booklet to help guide them on the outdoor exploratory activities which they will lead their smaller group of students on.



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 to help facilitate curriculum-connected discussions and inquiry.

Important Notes:

- By providing laminated copies, we hope to reduce the amount of wasted paper.
- These resources are specifically developed for use in Fish Creek Provincial Park within Alberta Parks programs.
- We greatly appreciate all feedback to strengthen our resources; please let us know if you have any recommended changes.

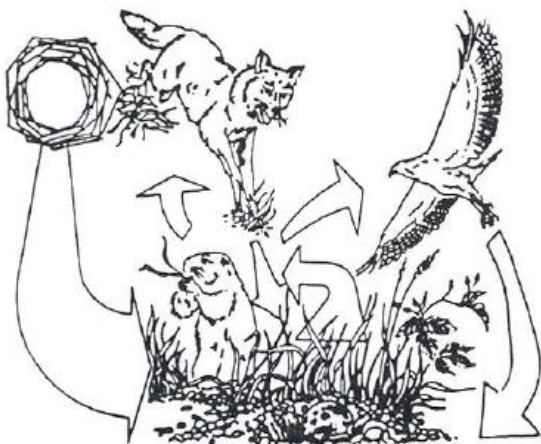
After Your Field Study

POST TRIP ACTIVITIES

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

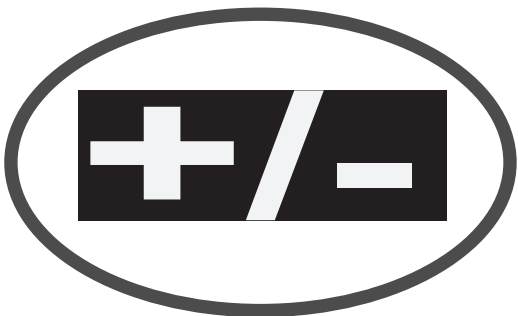
Build a Web

Have students create a simple Food Web using plants and animals they found evidence of on the field trip.



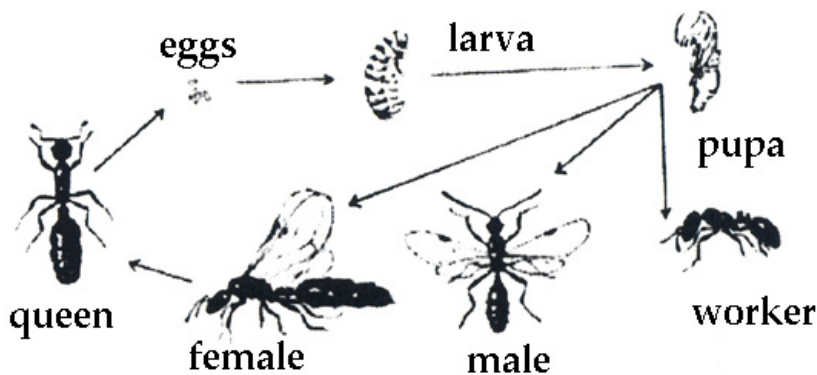
People Plus and Minus

Have students tally up the “Plus” and “Minus” scores from their Student Journal. Discuss with the class the scores and the impacts of human use in the park they observed.



Life Cycle

Have students research and create a pictorial or diagrammatic life cycle of a plant, animal or insect they discovered while on their field trip.



Appendix

PROGRAM VOCABULARY

Altricial: Animals that are born or hatch without fur or feathers, eyes sealed shut, immobile and generally helpless.

Carnivore: Meat eater.

Chrysalis: The pupa stage of a butterfly or moth. A hard outer covering often well camouflaged and attached to the underside of leaves, branches or on rocks.

Fledgling: A young bird learning to fly.

Gall/Insect Gall: Abnormal growths that occur on leaves, twigs, roots, or flowers of many plants. Most galls are caused by irritation and/or stimulation of plant cells due to feeding or egg-laying by insects such as aphids, midges, wasps, or mites.

Herbivore: Plant eater.

Juvenile: A young animal that looks much like an adult except for its size and reproductive activity.

Larva: The stage in the life cycle in insects after hatching from an egg prior to changing into an adult. Larva are often very different in appearance to the adult.

Life Cycle: A series of changes through development or growth of an individual from fertilization to death. Although called a “cycle” it is most often a linear progression.

Metamorphosis: The process where an animal changes from larva to adult form.

Nestling: A young bird after hatching and before learning to fly (fledge).

Nymph: The larval stage of insects that go through incomplete metamorphosis. Nymphs share some physical characteristics with the adults often having legs, eyes and similar mouthparts, etc.

Omnivore: An animal that feeds on both plant and animal material.

Precocial: Animals that are born or hatch in a partially independent condition. They have fur or feathers, are mobile and eyes are open.

Pupa: In insects, the stage where the larval form transforms into the adult form.

FOOD WEB GAME

For this activity you will need space so everyone can sit in a circle and a large ball of string. The game demonstrates how everything in nature is connected and impacts on one thing are felt by many.

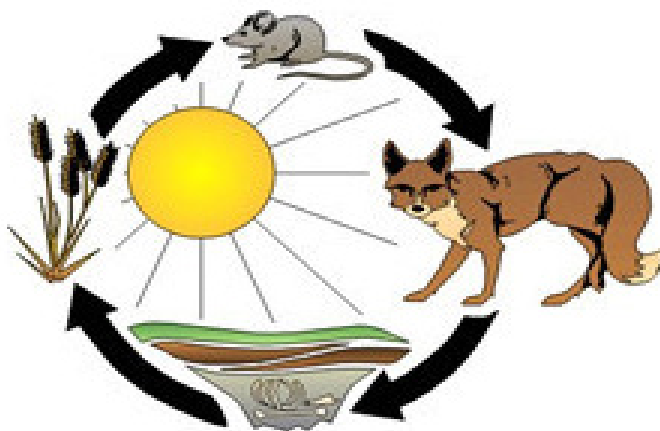
- Have everyone sit in a circle and you can be inside or outside holding the ball of string.
- Ask if someone can name a plant that grows in the area. Give the end of the string to the person that answers.
- Ask if someone can name an animal or insect that might feed on the plant named by the first person. Stretch out the string to this second person and have them hold onto the string as well.
- Ask now if someone can name an animal or insect that eats the animal or insect from the previous answer. Stretch out the string to this person.

You now have 3 students connected by the string. Keep asking questions about plants, animals, insects, air, sun, water, soil, etc. to connect everyone in the circle. Once everyone is connected change your questions to ones that will help demonstrate how changes can impact many parts of the web.

Example:

- A fire in the area has killed this tree (picking the student that was the tree). Ask the student to tug three times on the string. Ask who all felt the tug? Have all who felt the tug now tug three times in unison and ask again who all felt the tug. Repeat until the entire circle has felt the tugging.

You can ask a variety of questions about plants and animals in the web or about things like the water, soil, living space to help students understand the connectedness of nature.



LIFE CYCLE GAME

1) Set Up/Preparation

Review the life cycle of an insect: Egg – Larva – Pupa – Adult
Teach students an action that represents each life cycle stage.

Egg - scrunch up into a little ball and waddle around with their knees bent and the arms curled over their heads.

Larva - jump and wriggle around with their arms straight down by their sides.

Pupa - walk around with their arms straight up and palms together over their heads.

Adult - move around like the insect of their own choice (butterfly, ant, bee, etc).

2) Review the rules for **Rock - Paper - Scissors** with the whole class, and have a couple of practice games so all know how to play.

3) Time to play.

- Everyone begins as an egg.
- Students waddle around the room as an egg, until they encounter another egg.
- The two eggs play Rock Paper Scissors.
- The winner grows into a larva. The other player remains an egg.
- Students continue around the room, playing Rock Paper Scissors against someone in the same life stage (e.g., Eggs vs. Eggs, Larva vs. Larva, Pupa vs. Pupa), until they become an adult.
- Students who win Rock Paper Scissors advance to the next life stage.
- Students who do not win remain at the stage they are in.
- Once they are an adult, students continue to move around the room in adult form, but no longer play Rock Paper Scissors.

4) Discussion

- Discuss how different students moved through the life cycle at different paces, just like different insects do.
- Discuss how once they ran out of possible partners, some students remained stuck at their life stage. Relate this to nature, in which not all eggs hatch, not all larva survive (weather, predation, starvation, etc).

Variation

This game can be played using any life cycle (e.g., infant, child, adult)

PEOPLE and PARKS MATCH - DO'S & DON'TS

Draw a line to match the things that are things we as people should do and those things that we should not do when we are visiting the park.

DO



DON'T



DO



DON'T



DO



DON'T



PEOPLE and PARKS MATCH - DO'S & DON'TS - ANSWER KEY

Draw a line to match the things that are things we as people should do and those things that we should not do when we are visiting the park.

DO



DON'T



DO



DON'T



DO

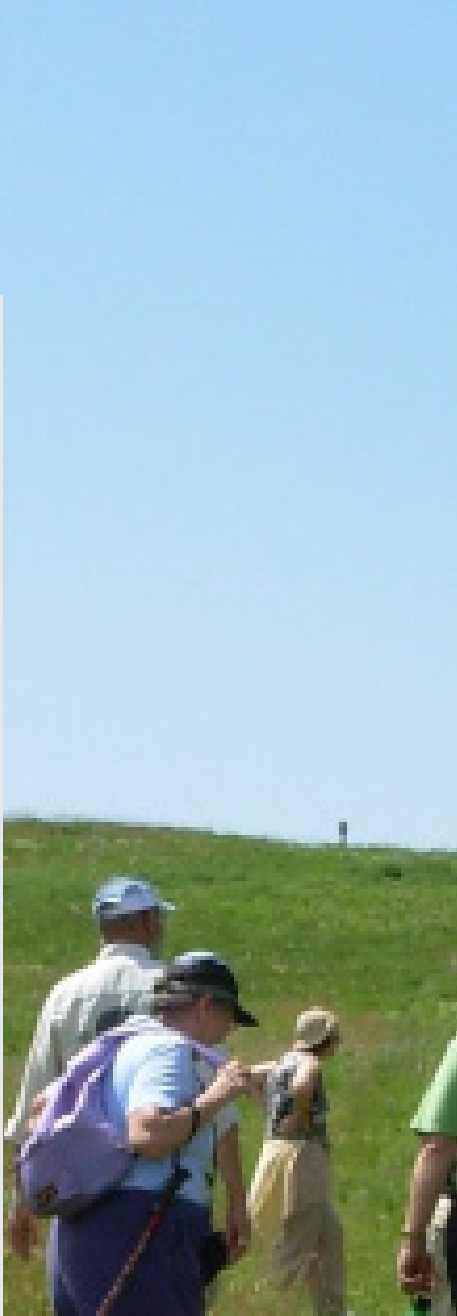


DON'T



PARKS, PEOPLE, PLANTS, AND ANIMALS

A Field Study for Grade 2 & 3 Students



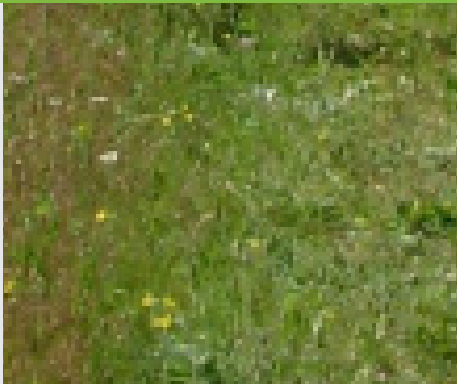
STUDENT JOURNAL

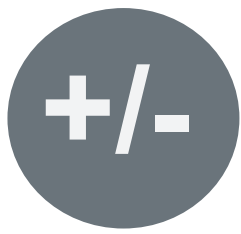
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Name: _____

Date: _____





People Plus (+) or Minus (-)

While exploring along the pathways look for evidence of what people are doing while visiting the park. Are these things good - a “People Plus” or not so good - a “People Minus”? Record how many of each you find while on the pathways.

Dogs on leash. (+)	Litter on the ground. (-)
Dogs off leash. (-)	People picking up litter. (+)
People walking or riding on pathways.	Dog poop on the ground. (-)
People walking or riding off pathways.(-)	People picking up after their dog. (+)
Flowers and berries on the plant. (+)	Animals eating people food or being fed by people. (-)
People picking flowers and berries. (-)	Animals eating natural food. (+)

Review your findings and total up all the People Plus (+) scores and all the People Minus (-) scores.

Total People Plus (+) Scores = _____

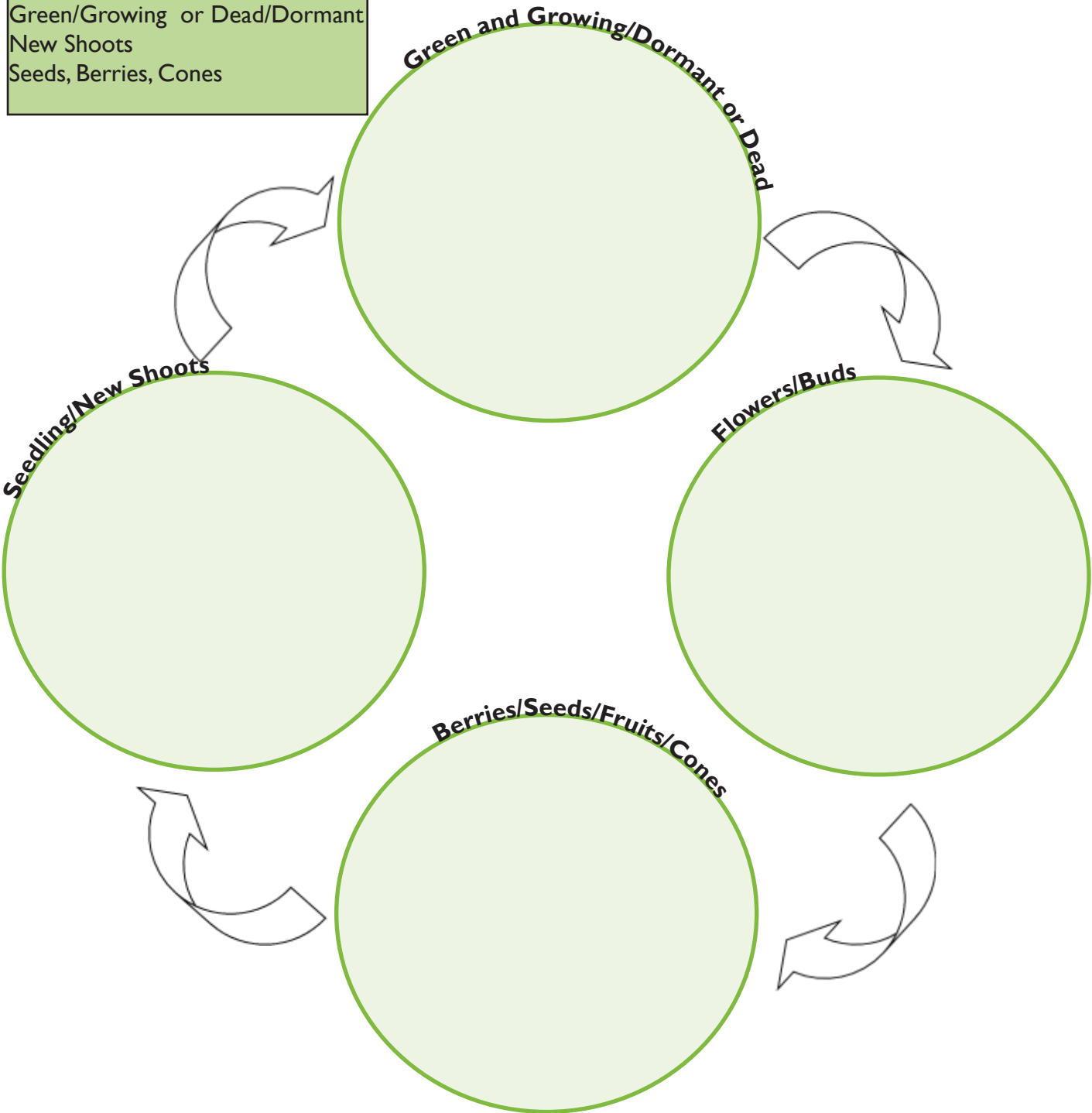
Total People Minus (-) Scores = _____

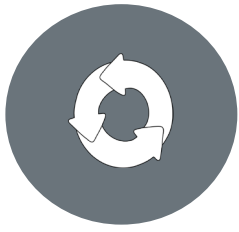


Life Cycle Search

Look for evidence of different life stages for Plants, Insects, Birds, and Mammals. Record what life stages you discover in the cycle diagrams on the following pages. Use words and pictures to describe what you found. Put your information in the correct order.

Plants - Evidence to Search for:
Trees, Shrubs, Grasses, Flowers
Flower Heads, Buds
Green/Growing or Dead/Dormant
New Shoots
Seeds, Berries, Cones

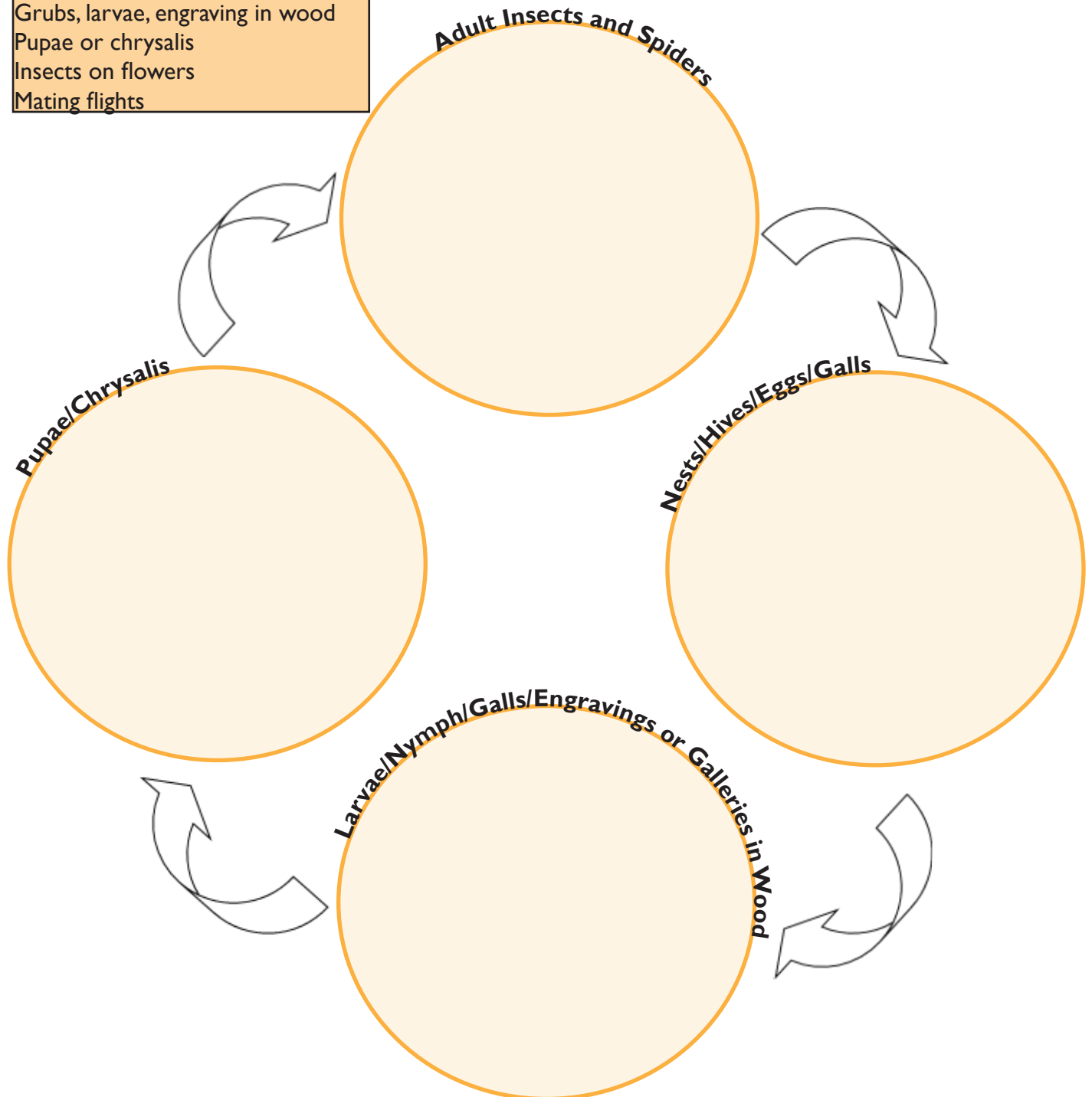


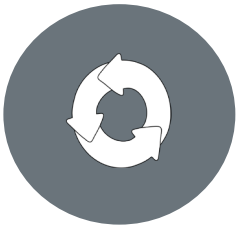


Life Cycle Search

Insects- Evidence to Search for:

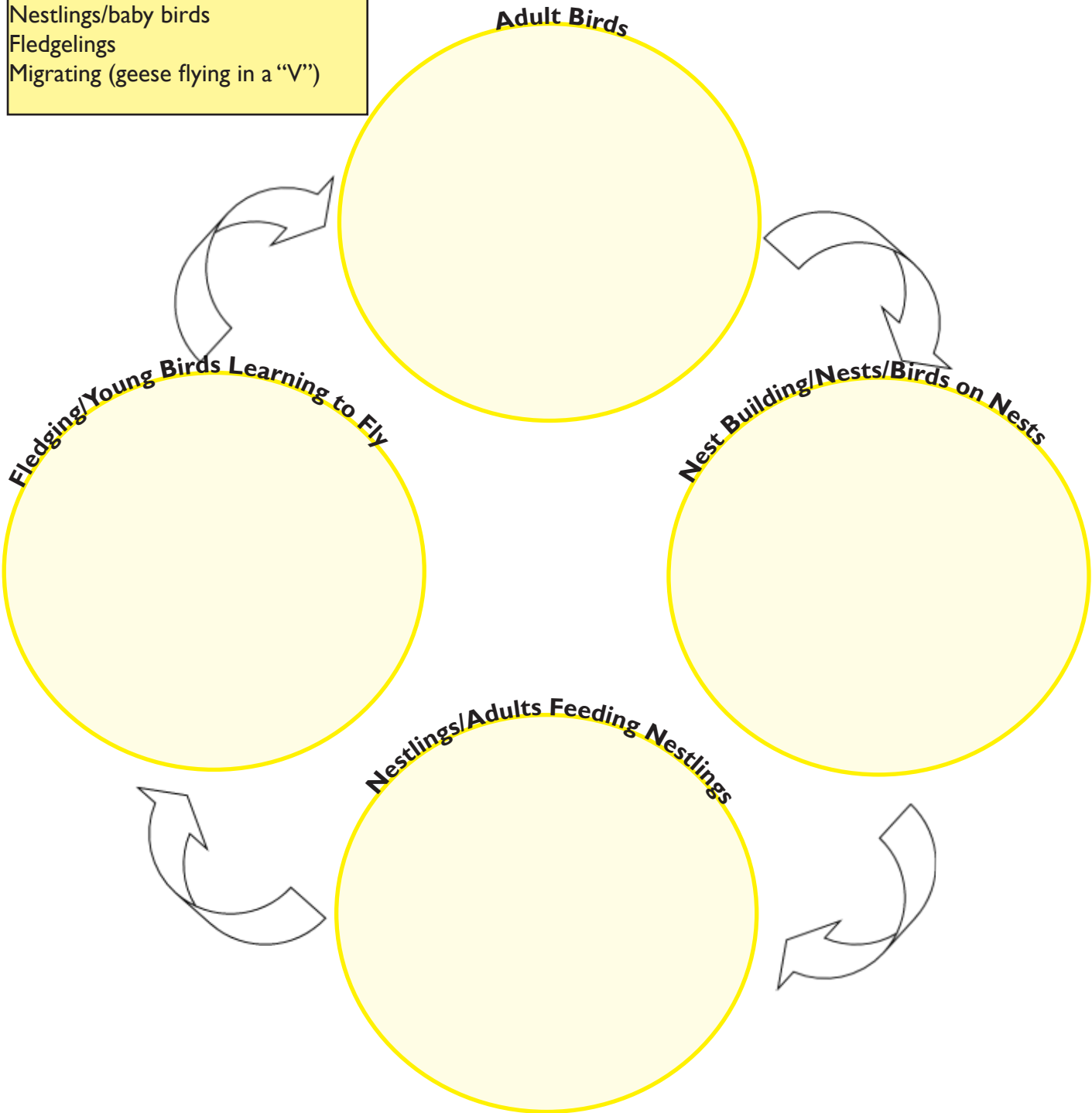
Adults crawling, flying, climbing
Ant hills, wasp nests, insect galls
Grubs, larvae, engraving in wood
Pupae or chrysalis
Insects on flowers
Mating flights

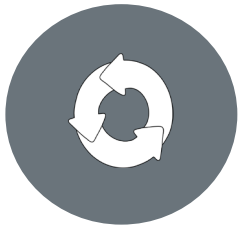




Life Cycle Search

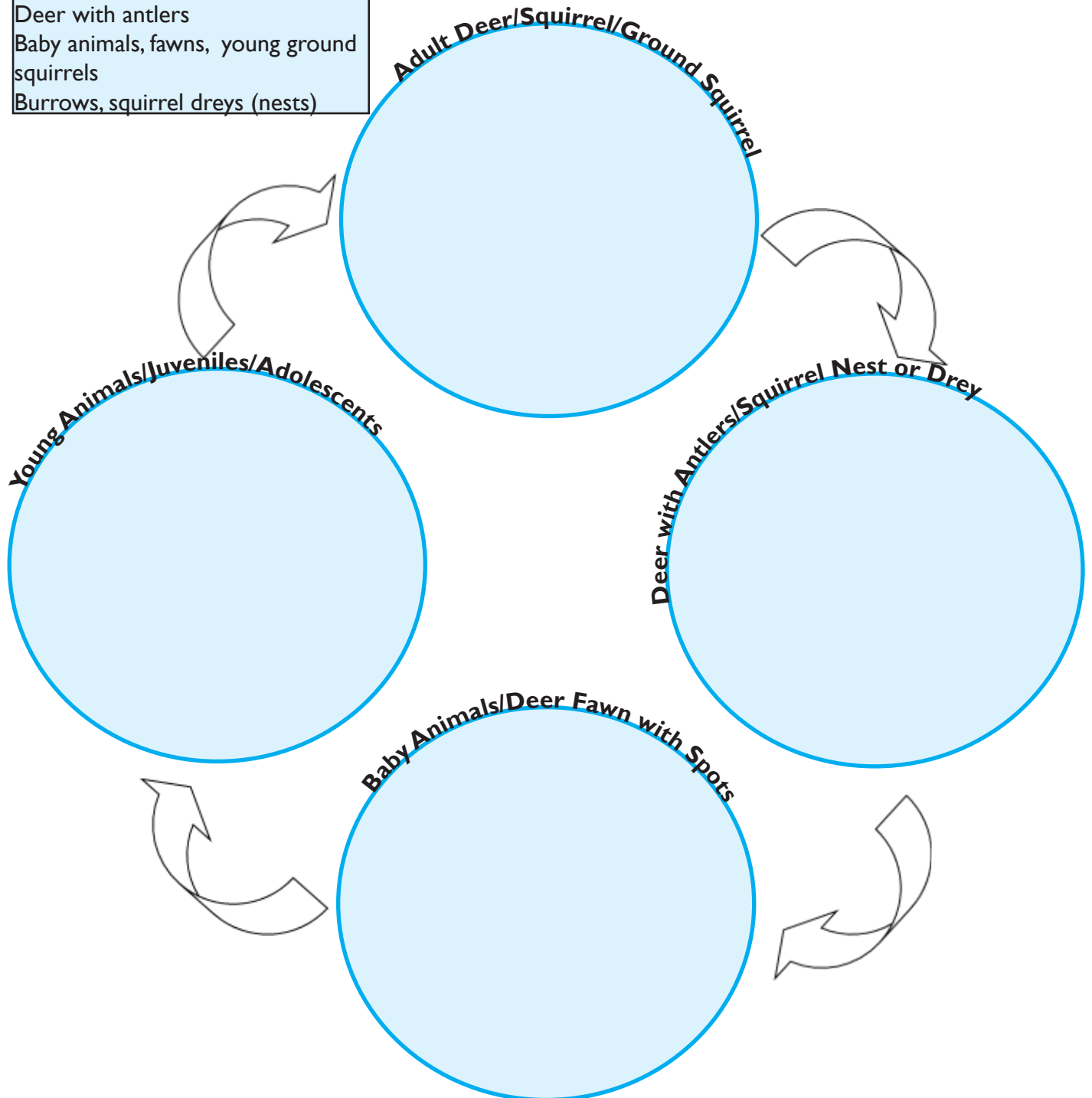
Birds - Evidence to Search for:
Adults flyings, perched, walking
Nest building/old nests/egg shells
Nestlings/baby birds
Fledgelings
Migrating (geese flying in a “V”)





Life Cycle Search


Mammals- Evidence to Search for:
Adult deer, squirrels
Deer with antlers
Baby animals, fawns, young ground squirrels
Burrows, squirrel dreys (nests)





Food Web Sleuthing

Animals and plants are interacting in the park all the time. Food webs and food chains are ways we represent these interactions. In the charts below record the signs of animals you find that show some sort of interaction.

Draw or Describe the Animal or Animal Sign Found	What Animal Was It?	What Does It Eat? What eats it?	Is It a Herbivore (H), Carnivore (C) or Omnivore(O)?
A track that shows 4 toes with claws on each. 	Coyote or dog	Other animals or meat. Bigger predators or meat eaters.	C



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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).

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



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

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

