



Weaselhead Grade 4 Outdoor Program Teacher's Guide Beavers

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Thank you for your participation in our Grade 4 Weaselhead Education Program! This program is specifically designed to meet cross curricular learning outcomes focused on the new Alberta Science and Social Studies curriculums. Our program is led by a Weaselhead Naturalist who brings their own expertise and personal experiences to your program.

The following items have been enclosed in this Teacher's Guide package:

- Curriculum Connections
- Program Objectives
- Participant Guidelines
- Behavioural Expectations
- A Map of the Weaselhead
- Field Trip Program Outline
- Activities
- In-class Follow Up Activities
- Background Information on the Weaselhead Area

Program Overview

Students learn how beavers shape the land and contribute to healthy ecosystems. They explore some of the adaptations beavers have that make them successful semi aquatic organisms and learn how some of these adaptations created demand for trade, shaping Canada as we know it today.

Curriculum Connections

Science: Students investigate the systems of Earth and reflect on how their interconnections sustain life; Students analyze organisms and relate external structures to functions; Students examine and apply design processes to meet needs.

Social Studies: Students investigate changes in Canada's political boundaries; Students examine significant historical events that contributed to the formation of the country of Canada; Students examine the role of the fur trade in the development of Canada.

Guiding Questions

Science

Earth Systems

- How does Earth sustain life?

Living Systems

- In what ways do the structures of organisms support survival?

Computer Science

- How can design meet needs?

Social Studies

- How did Canada become a country?
- How did colonies influence the formation of Canada?
- How did economic opportunities influence the establishment of Canada?
- How did beavers shape Canada?

Before the Trip

Pre-trip Preparation

- Please have students divided into 4 or 5 groups per class prior to the field trip.
- Students should bring a journal or set-up a field trip journal on a clipboard with blank paper.

Participants should:

- dress for the weather; dress in layers and wear appropriate footwear.
- bring a snack, lunch, and plenty of water for a full day field trip.
- bring pencils or pens.
- bring a field journal OR blank paper on a clipboard.
- bring a plastic bag OR mat, if the student does not want to sit on the ground. (Optional)

NOTE: This entire program is held outside with no indoor facilities. Students must be prepared for all weather and conditions. They will be hiking approximately 3-5 km on dirt trails. Appropriate footwear is a safety requirement.

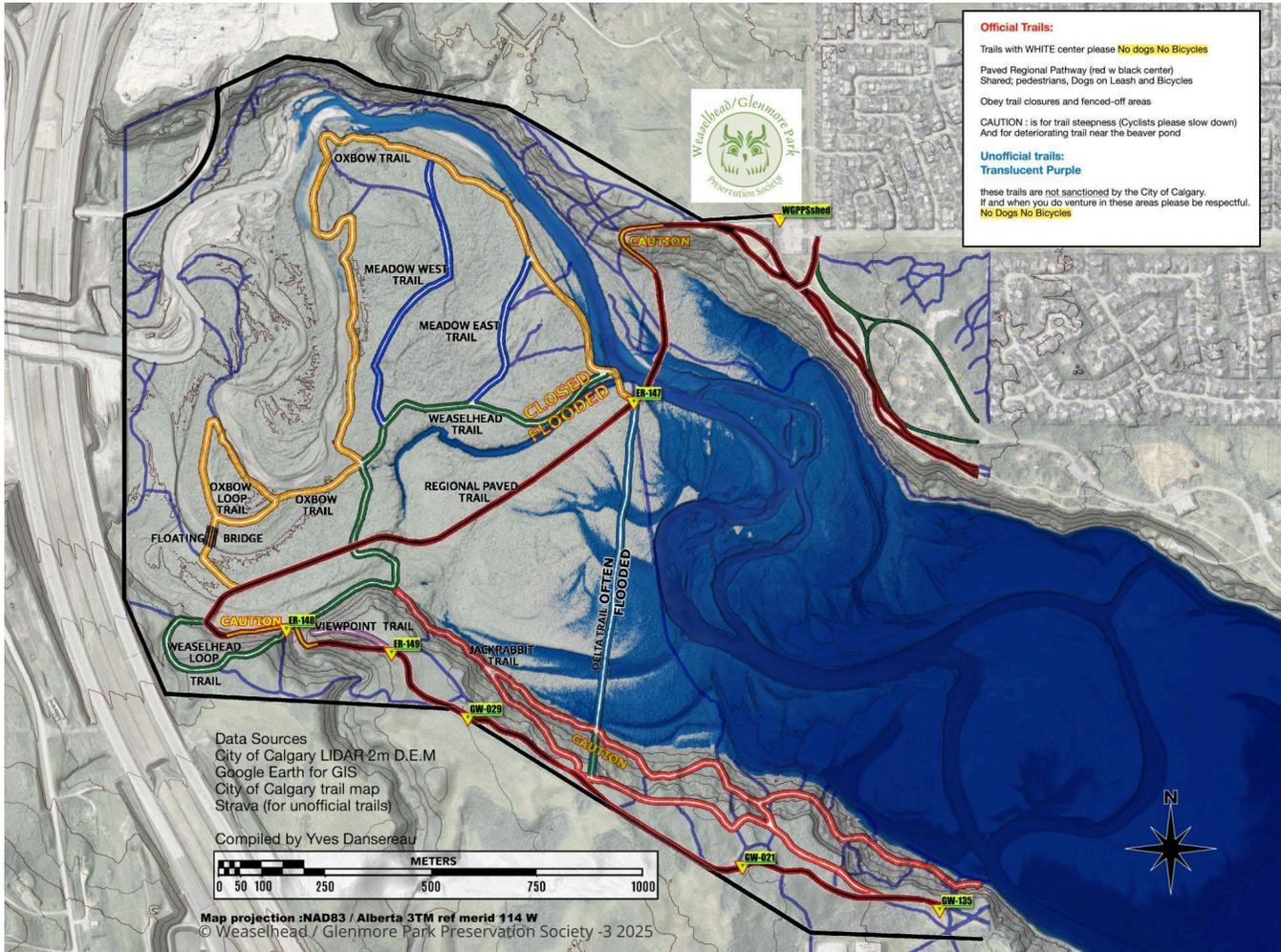
Behavioural Expectations

- Remain with the group and keep in sight of supervisors at all times.
- There is always an adult leader at the front of the group and at the end of the group.
- Never remove natural items from the area. Vegetation, insects, mammals, birds, and amphibian life is to be respected and left in the natural habitat.
- Leave no trace of our visit. All litter must be brought back out.
- Unsafe behaviour such as tripping, wrestling, fighting, and teasing is unacceptable and may result in withdrawal from the activity.
- Cooperation by listening, participating in group discussions, observing, and recording is expected during the learning experience.
- Each adult is expected to participate in the activities and to provide due safety and care for each of the students.

- No headphones or earbuds are allowed. This is for the safety of the participants.
- **Both adult's and student's cell phones must be kept away unless taking pictures or in case of emergency.**

Map of the Area

Your group will be starting their hike at the 37th Street Parking Lot. Meet your Naturalist leader at the shed located in the NW corner of the parking lot. We will hike into the Weaselhead down the hill to cross the bridge and explore the area. Depending on conditions, we may also be using the fields and the Aspen Forest in North Glenmore Park.



Field Trip Program Outline: FULL DAY

9:30 am	<ul style="list-style-type: none"> Meet your Naturalists at the grey shed in the NW corner of the parking lot at 37th Street.
9:30 – 9:45 am	<ul style="list-style-type: none"> Introduction, Land Acknowledgement, park rules, and expectations Washroom visit
9:45 – 10:30 am	<ul style="list-style-type: none"> Learning about processed vs. natural materials and how they can be used Activity: Recycle Relay
10:30 – 10:40 am	<ul style="list-style-type: none"> Snack break
10:40 – 11:40 am	<ul style="list-style-type: none"> Hike with a focus on how beavers have shaped the landscape, the materials they use and the adaptations they have. Activity: Build a beaver
11:40 am – 12:10 pm	<ul style="list-style-type: none"> Lunch
12:10 – 1:30 pm	<ul style="list-style-type: none"> Pond dip to learn about life in wetlands that beavers support. If a pond dip is not possible due to weather and season, students will play the beaver ecosystem web game.
1:30 – 2:30 pm	<ul style="list-style-type: none"> Walk back to field near parking lot Storytelling: Through Indigenous stories and discussion of Canadian history, students will learn the importance of beavers over time and how beavers have shaped Canada as we know it today. Wrap up discussion: Review all of the information they learned about beavers and their importance for healthy ecosystems.

Please Note: This outline is adjusted by each Naturalist leader to accommodate distances between the classes. If there are 2 or 3 classes coming, we will be visiting different places at different times and may not see each other during the day. The above is just an example of a typical outline.

Activities

- Recycle relay: Students learn about different materials that humans use to meet their needs and wants and how they are disposed of after their use. They then compare this to beavers throughout the day, the materials they use and what happens when beavers are no longer using them.
- Build a beaver: Students learn about the physical adaptations beavers have that make them so successful.
- Pond dip: Students will learn about invertebrates and other life that is supported by wetlands that are often created by beavers OR
- Beaver ecosystem connections: in lieu of a pond dip, students will play a game connecting different life forms to beavers.
- Storytelling: Students learn how different Indigenous communities view beavers and how beavers shaped Canada as we know it today.

Weaselhead History

The Weaselhead area has a name shrouded in mystery. Like so many Indigenous stories, how the Weaselhead got its name has been lost over time. What we do know is that although there are weasels that call this area home, the name has nothing to do with actual weasels! Weaselhead is a traditional Blackfoot last name so the name may be related to someone from the Blackfoot Confederacy. There is written history of a man with the name Weazel Head on the Tsuut'ina reserve as well, but little is known about where he originated. Early settler Sam Livingston, whose house is now part of Calgary's Heritage Park, was the first European to settle in the Elbow River valley, now known as the Weaselhead.

Between 1910 and 1990, Tsuut'ina reserve and parts of the Weaselhead were used for military training exercises. Foxholes and signs warning of ordinances possibly left behind remind of this history even today. The last time an exploded device was found was during the floods of 2013.

The City of Calgary bought what is now the Weaselhead from the Tsuut'ina Nation in 1929 to build the Glenmore Reservoir, which still provides roughly 40% of Calgary's drinking water.

Today, this protected area spans 404 hectares (989 acres) and is bursting with diverse habitats. Wander through dense White Spruce forests, leafy Balsam Poplar groves, and colourful wildflower meadows. The Elbow River winds through it all, with floodplains, beaver ponds, and wetlands teeming with life.

As you explore, you'll uncover clues to the area's rich history. Fossils in sandstone cliffs date back 35 million years, and traces of ancient river paths still shape the landscape. You can find evidence of Indigenous campsites and buffalo hunts, as well as remnants of a military training base that once operated here.