



# Weaselhead Grade 5 Field Trip Teacher's Guide Package Adapting to Change

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Thank you for your participation in our Grade 5 Weaselhead Education Program! This program is specifically designed to meet cross curricular learning outcomes focused on the new Alberta Science and Social Studies curriculums. This program is focused on Earth Systems, Living Systems, and the Scientific Method. Historical perspectives are explored through timelines, maps, and stories. Our program is led by a Weaselhead Naturalist who brings their own expertise and personal experiences to your lessons.

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

## Curriculum Connections

**Science:** Students learn how trees and beavers are supported by their internal and external structures and systems. They will learn the function of these systems while building a tree and a beaver in fun interactive activities. Students develop a question and hypothesis for a topic discussed. They learn how the scientific method was applied to the Southwest Calgary Ring Road Impact Study. Students may participate in Citizen Science activities, helping to conduct scientific investigation.

**Social Studies:** Students will learn about the history of the area by considering the Elbow River and Priddis Trail as trade and travel routes. The beaver fur trade extends overseas - this animal being historically significant, symbolizing Canada. Timelines of historic events are constructed by students. Maps of the region are studied.

**Health & Physical Education:** Students participate in a variety of physical activities, including hiking and games, that develop various components of physical fitness, integrating elements of movement. They learn about wild foraging and natural food and medicine options.

## Guiding Questions

### Science

#### Earth Systems

- How can climate and its effects be understood?
- What is the difference between climate and weather?
- How can weather affect different parts of the park?
- How is climate change affecting different parts of the park?

#### Living Systems

- How are organisms supported by vital biological processes and systems?
- What are the similarities and differences between human and animal internal systems?
- How do plants, including trees, transport water and food?

#### Scientific Method

- How does evidence lead to understanding?

#### Space (Optional Topic)

- How does the night sky connect with seasons?

### Social Studies

- How do social scientists develop an understanding of the world?
- How has geography contributed to the development of the local area?
- What factors contributed to the success of people in the area?
- How has the Weaselhead changed over time?
- How did beavers shape Canada?

## Program Objectives

Students examine evidence to better understand how our changing climate is impacting flowers, insects, and birds in the Weaselhead natural area. They will learn how structural systems in trees and beavers function. They will build a timeline of historic events in the area and study local maps. Students develop a deeper understanding of the Scientific Method, learning about our Impact Study, and may have an opportunity to conduct some Citizen Science themselves.

## 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. 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)

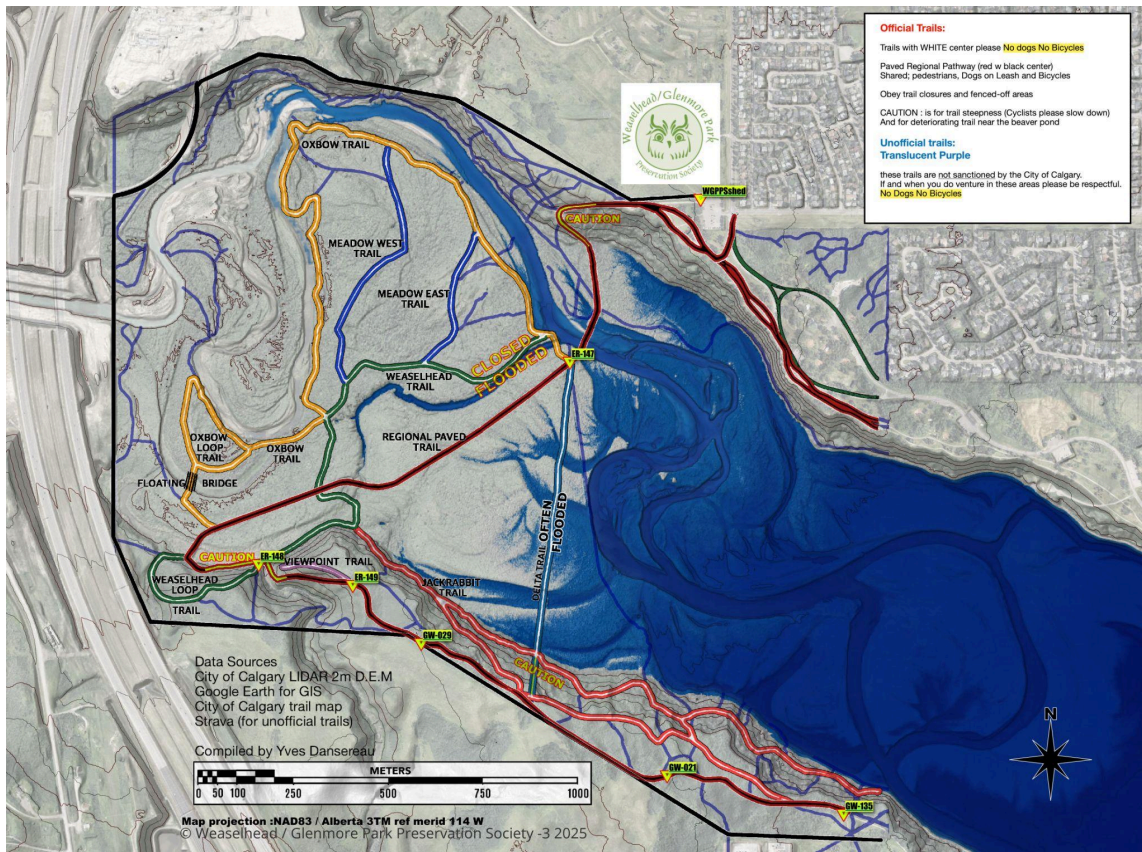
***NOTE: This entire program is held outside with no indoor facilities. Students must be prepared for all weather and conditions. They will be hiking approximately 3-5 km on dirt trails. Appropriate footwear is a safety requirement.***

## 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.
- **Parents and teachers: Please keep cell phones away, unless taking pictures or in case of emergency.**

## Map of the Area

Your group will be starting their hike at the 37<sup>th</sup> 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"> <li>Meet your Naturalists at the grey shed in the NW corner of the parking lot at 37<sup>th</sup> Street.</li> </ul>
9:30 – 9:45 am	<ul style="list-style-type: none"> <li>Introduction, Land Acknowledgement, park rules, and expectations</li> <li>Washroom visit</li> </ul>
9:45 – 10:30 am	<ul style="list-style-type: none"> <li>Learning about the structure and function of the various parts of a tree.</li> <li>Activity: Build A Tree</li> </ul>
10:30 – 10:40 am	<ul style="list-style-type: none"> <li>Snack break</li> </ul>
10:40 – 11:40 am	<ul style="list-style-type: none"> <li>Hike with stops to learn about plants and animals, interactions, and local history.</li> <li>Students observe maps and learn about the history of the area.</li> <li>Activity: Students complete a timeline of local historical events. The fur trade and the importance of beavers is mentioned.</li> </ul>
11:40 am – 12:10 pm	<ul style="list-style-type: none"> <li>Lunch</li> </ul>
12:10 – 12:50 pm	<ul style="list-style-type: none"> <li>Hike with stops to learn about plants and animals, interactions, and local history.</li> </ul>

	<ul style="list-style-type: none"> <li>● Activity: Pond Dip with connections to beavers and their importance to the wetland.</li> <li>● Comparison of human and aquatic invertebrates. Respiratory and skeletal systems will also be explored.</li> </ul>
12:50 – 1:45 pm	<ul style="list-style-type: none"> <li>● Hike with discussion about the Impact Study methodology and technology</li> <li>● Activity: Citizen Science</li> </ul>
1:45 – 2:15 pm	<ul style="list-style-type: none"> <li>● Discuss ideas about the changing environment and the influence of climate variables.</li> <li>● Activity: Forest Five</li> </ul>
2:15 – 2:30 pm	<ul style="list-style-type: none"> <li>● Walk back to parking lot</li> <li>● Wrap up</li> </ul>

*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

- Build a Tree: Learn about external and internal tree structures in relation to function. Students take on the roles of heartwood, sapwood, cambium, bark, and roots. They learn how insects and woodpeckers impact their structural integrity.
- Pond Dip: Learn about the differences between the internal structures of aquatic invertebrates compared to humans.
- Timeline: Students take their historical knowledge learned about the area and apply it to an interactive activity where they receive cards with historic events and assemble themselves across a span of land or field to create a timeline of the historic events.
- Maps: Students view historical maps of the area that include images and stories about the damming of the Glenmore Reservoir, the building of Priddis Trail, and the construction of the Ring Road.
- Scientific Method: Naturalist leads a discussion with students regarding ideas about the changing environment and the influence of climate variables. Students develop a question and hypothesis related to their topics of interest.
  - Optional Follow-up In-school Activity: students develop a study based on the scientific method. They consider controlled and manipulated variables and design

a methodology to test their hypothesis. They plan and conduct their controlled experiment.

- Stories from the Land: Taken from the writings of Jesse Salus and stories told by Hal Eagletail are read from [www.calgaryringroad.com](http://www.calgaryringroad.com). The rich history of the Tsuut'ina First Nations helps inform students of the human interaction that has taken place on the land throughout Alberta's history.
- Hikes: Classify local plants and animals based on appearance, habitat, and structures. Relate the external structures of plants and animals to their functions. Observe and discuss ecosystem interactions. Discuss how plants and animals respond to sensory stimuli with changes to food, water, temperature, and light. How has the construction and operation of the ring road impacted their sensory stimuli?
- The Night Sky and Storytelling: Identify and discuss important features on the land and in the sky that influenced local First Nations. Observe how human activity has impacted our ability to see the night sky and learn about the Weaselhead's work to become a Nocturnal Sanctuary.

## In Class Activities

- Students develop a study based on the scientific method. They consider controlled and manipulated variables and design a methodology to test their hypothesis. They plan and conduct their controlled experiment.

Resources to use in your classroom as you prepare your students for the field trip:

<https://theweaselhead.com/home/park-location/>

<https://calgaryringroad.com/2017/05/18/a-day-on-the-tsuutina-nation-reserve/#more-6869>

<https://calgaryringroad.com/category/lakeview/>

- Wild Constructs:

Ancestral Birdsong [https://youtu.be/xbFm2MdWKF?si=Aw90p\\_EjD1mVHltN](https://youtu.be/xbFm2MdWKF?si=Aw90p_EjD1mVHltN)

Chaguzagha-tsi <https://youtu.be/UxMcWXzEYwk?si=FbHHIFMI8ZiGkkz>

- Research projects on the contributions of diverse cultural groups to the development of the local area.
- Debates or discussions on current environmental issues affecting the Weaselhead, emphasizing democratic decision-making and civic responsibility.

## 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.

With over 480 plant species, including rare ones like the Western Wood Lily, the Weaselhead is a wildlife haven. Frogs, salamanders, and more than 200 bird species thrive here, while larger animals like moose, bears, and even cougars visit throughout the year.

The Weaselhead is a living tapestry of Calgary's natural and cultural history, offering a rich, engaging experience for all who visit.

*REMEMBER: This is a natural area park. It is illegal to remove anything from the area. Fossils and certain plant species are protected in Alberta.*

