



Weaselhead Grade 9 Field Trip Teacher's Package Biodiversity and Ecosystems

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Thank you for your participation in our Grade 9 Weaselhead Education Program! This program is specifically designed to meet curricular learning outcomes in the Alberta curriculum. 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
- Background Information on the Weaselhead Area

Curriculum Connections

Science: Unit A: Biological Diversity. Students explore biological diversity in the Weaselhead and learn about different symbiotic relationships and human impacts.

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

- What is biological diversity?
- What are some of the relationships that can be seen in the Weaselhead between species?
- How do human activities impact biodiversity?

Program Objectives

Students examine different forms of life in the Weaselhead and discover how they survive and relate to other living things. They look at wetlands and river systems to understand the effect of human activities in the Weaselhead natural area. Students develop a deeper understanding of the Scientific Method, learning about our Impact Study and Calgary Connect.

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)

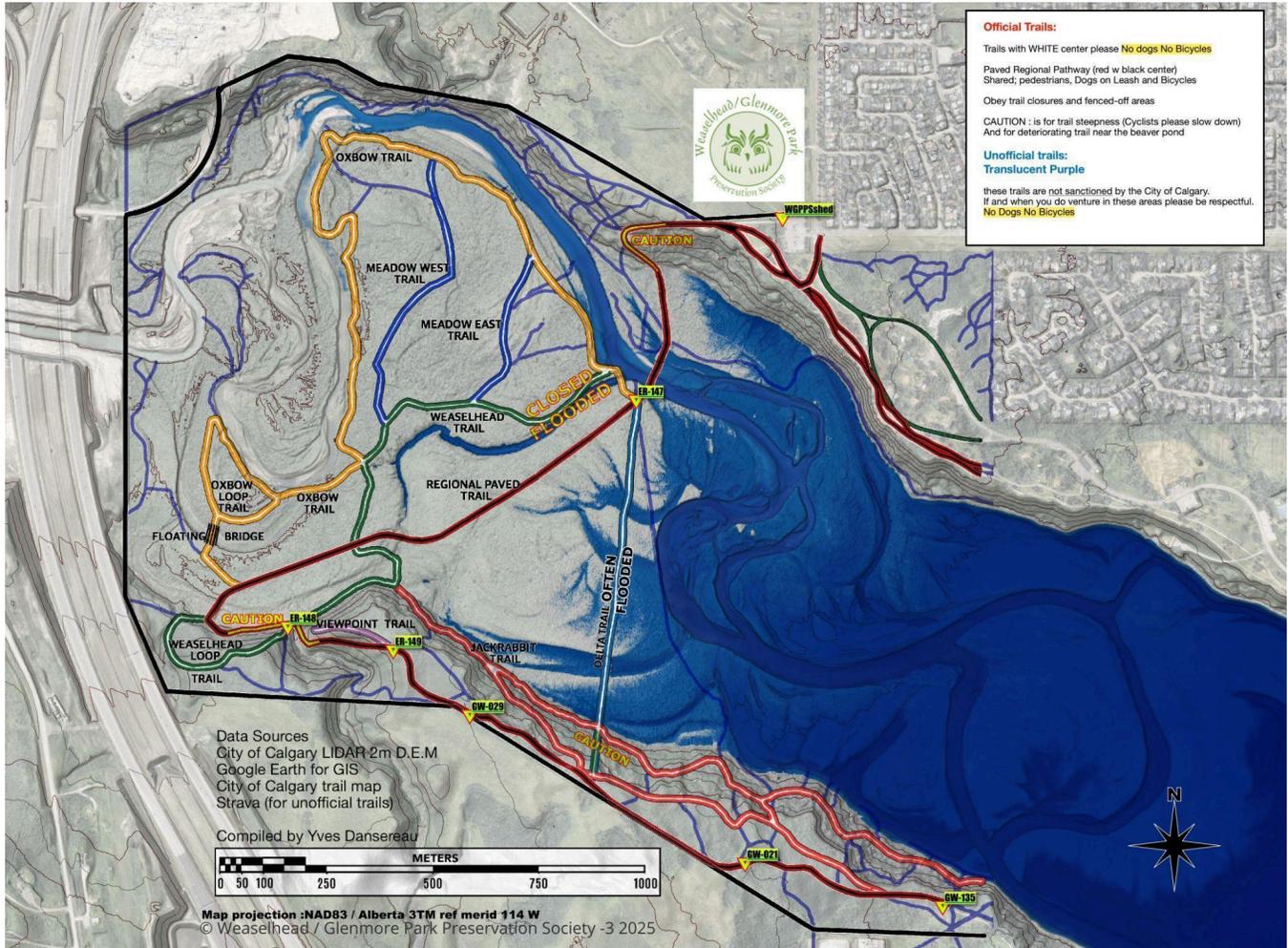
NOTE: This entire program is held outside with no indoor facilities. Students must be prepared for all weather and conditions. They will be hiking approximately 3-5 km on dirt trails. Appropriate footwear is a safety requirement.

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.
- **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 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 – 10:00 am	<ul style="list-style-type: none"> At the top of the escarpment, students discuss what biodiversity is and gain a General overview of the watershed and water quality issues.
10:00 - 10:30 am	<ul style="list-style-type: none"> Hike down the hill learning about mutualism, parasitism and commensalism, and niches among local native shrubs, as well as sexual/vs. asexual reproduction in trees.
10:30 – 10:40 am	<ul style="list-style-type: none"> Snack break
10:40 – 11:30 am	<ul style="list-style-type: none"> Activity: First pond dip. Students conduct both biotic and abiotic testing for water quality
12:00 – 12:15 pm	<ul style="list-style-type: none"> Lunch
12:10 – 12:50 pm	<ul style="list-style-type: none"> Activity: Second Pond Dip. Students conduct only biotic water quality testing
12:50 – 2:00 pm	<ul style="list-style-type: none"> Hike through the park learning about different organisms and relationships Discussion about the Impact Study methodology and technology, Calgary Connect and Dark Skies. Activity: Forest Five
2:00 – 2:30 pm	<ul style="list-style-type: none"> Walk back to parking lot Wrap up and discussion of the importance of biodiversity for resilience and the actions the Weaselhead is taking as well as actions they as individuals can take.

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

- Pond Dip: Learn about aquatic invertebrates that thrive in wetlands while studying environmental chemistry. They are introduced to bioindicators and use this as a tool for inference about water quality at the second wetland.
- Scientific Method: Naturalists discuss how the ring road construction impacted wetlands in the Weaselhead and how environmental monitoring takes place by looking at the Southwest Ring Road Impact Study. They also explore monitoring and human impacts

through Calgary Connect and discuss the importance of dark skies and the Weaselhead's collaborative work for a Nocturnal Sanctuary.

- Hikes: Classify local plants and animals based on appearance, habitat, and structures. Observe and discuss ecosystem interactions, symbiotic relationships and sexual vs. asexual reproduction
- Forest Five: Students take 5 minutes to sit quietly and observe the world around them. Afterwards they discuss what they heard and saw and brainstorm how human activities are affecting what they see and hear.

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.