



Weaselhead Grade 4 At School Program Teacher's Package Biodiversity and Ecosystems

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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
- Field Trip Program Outline
- Activities
- Background Information on the Weaselhead Area

Curriculum Connections

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

Guiding Questions

Science

Earth Systems

- How does Earth sustain life?

Living Systems

- In what ways does the structure of organisms support survival?
- What are examples of organisms, species, communities, and ecosystems in our local environment?
- How is respiration different in plants and animals?
- Can you find structures that have similar functions in plants and animals?
- How do animals use their senses to detect food, predators, danger, or other plants and animals?

Scientific Method

- How can evidence advance knowledge in science?

Program Objectives

Students investigate how plants and animals sustain life and explore how plant and animal structural systems support survival.

Before the Program

Pre program preparation

- Students should bring a journal or clipboard with blank paper.

For any outdoor activities participants should:

- dress for the weather. Dress in layers. Wear appropriate footwear.
- bring pencils or pens.
- bring a field journal OR blank paper on a clipboard.

Behavioural Expectations for outdoor activities

- 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.**

Field Trip Program Outline: 1 ½ hours

5 minutes	• Introduction, Land Acknowledgement
35 minutes	• Pond dip or presentation to learn about how aquatic organisms survive in a wetland. Pond dip is weather and site dependent.
35 minutes	• Activity: Build a beaver and build a tree - compare and contrast different structural components of beavers and trees.
15 minutes	• Wrap up discussion including actions students can take to support animals and plants in the natural environment.

Activities

- Presentation or pond dip to learn how aquatic organisms survive in wetlands. This activity is season and site dependent.
- 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 and compare tree parts to animal parts in function.
- Build a Beaver: Learn about the special adaptations beavers have for their semiaquatic lifestyle and important role they play in healthy ecosystems. Compare some of the beaver's characteristics to the trees built in the previous activity.

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.