



Weaselhead Grade 5 At School Program Teacher's Guide Beavers

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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. 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
- Program Outline
- Activities
- In-class Follow Up Activities
- Background Information on the Weaselhead Area

Curriculum Connections

Science: Students learn the importance of beavers to healthy ecosystems and their contribution to Canada as we know it today. They discover adaptations beavers have that have made them so successful and so desirable.

Social Studies: Students will learn about the landscape history of the area by considering the Elbow River and surrounding wetlands. Maps of the region are studied.

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 rivers and wetlands?
- How is climate change affecting rivers and wetlands?

Living Systems

- How are organisms supported by vital biological processes and systems?

Program Objectives

Students learn how one animal has shaped the land and Canadian culture. They explore the adaptations that help beavers be so successful and discover the impact beavers have on the land. Their role in climate mitigation is also discussed.

Before the Program

Pre program preparation

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

For outdoor activities participants should:

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

Outdoor activity 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.**

Field Trip Program Outline: 1 ½ hours

5 minutes	• Introduction, Land Acknowledgement
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40 minutes	• Students learn about wetlands, how they are constructed and how beavers influence them. • Pond Dip OR Build a beaver dam. Pond dips will focus on the importance of wetlands for living things with discussion of beavers' contributions to healthy wetlands. Pond dips are site and weather dependent. Web of life highlight the interconnections of living things with a focus on beavers.
35 minutes	• Learn about the adaptations beavers have to survive • Activity: Build a beaver
10 minutes	• Discussion of the importance of healthy rivers and ecosystems and how students can advocate for them.

Activities

- Pond Dip: Learn about biodiversity in wetlands and how beavers support them.
OR
- Web of Life: Students take on the role of an organism and create connections between each other in a big web of life with beavers playing a central role.
- Build a beaver: One student becomes a beaver as the class learns about physical adaptations beavers have that make them so successful.

Optional follow up in class activities

- Students develop a wetland or beaver 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.
- Debates or discussions on current environmental issues affecting Calgary and 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.