

Beaver Ecology



Audubon Center
of the North Woods

Purpose: We are all familiar with the sticky, yellow squares of paper called Post-It notes, that we stick everywhere as reminders. If we look carefully we can find reminders to us in nature, as well. Nature's Post-It notes serve a slightly different purpose; they are clues to the past. In this class students will search for Nature's Post-It notes left by beavers, which used to live on the Audubon Center property. These clues will piece together information that answers questions about their habitat, natural history, impact on the landscape, influence on other organisms and historical importance.

Concepts:

- A beaver is a mammal in the rodent family; the largest rodent in North America
- A beaver's presence is apparent long after the beaver is present
- A beaver's physical appearance and internal anatomy are key to its survival, especially in winter
- Beaver pelts were in high demand, starting in the early 1600's, to make felt top hats; thus beginning the fur trade industry

Learning Outcomes: Students will

- Search for and report clues that indicate past beaver activity
- Interpret various beaver signs in order to piece together the life and role of a beaver within the food chain and greater ecosystem
- Recognize the physical features of beaver that has adapted it to survive in its environment
- Associate the beaver with the historical fur trade era

Minnesota Academic Standards:

Science:

- 5.4.1.1.1 Describe how plant and animal structures and their functions provide an advantage for survival in a given natural system.
- 5.4.4.1.1 Give examples of beneficial and harmful human interaction with natural systems.
- 7.4.2.1.1 Identify a variety of populations and communities in an ecosystem and describe the relationships among the populations and communities in a stable ecosystem.

Social Studies:

I. U.S. HISTORY

C. Colonization and Conflict, 1607-1780s: The student will demonstrate knowledge of the colonies and the factors that shaped colonial North America.

II. MINNESOTA HISTORY

B. Contact and Fur Trade 1600-1810: The student will demonstrate knowledge of early explorers and fur traders in Minnesota and the impact of the fur trade on both European and Native societies.

REVISOR: JAIME SOUZA, 2008

CLASS LENGTH: 3 HOURS

AGES: K-6

SEASON: F, SP, S

GROUP SIZE: 10-15

SAFETY: Beaver trail has uneven ground with tree roots, stumps and rocks that can easily be tripped over.

MATERIALS: Beaver skin, Beaver feet (front and hind), Beaver skull, Posters/pictures, Fake beaver teeth, Canoe paddle blade, SCUBA flippers, Foam pad with strap, Oil can or WD-40 can, Bottle of perfume, goggles, Ear muffs, Dry erase board and markers, plastic trays

CLASS PREP: Set-up pictures and diagrams, write outline for class on white board, walk beaver trail, and gather props for class

CLASS OUTLINE

- I. Ten Minutes to Teaching
- II. Introduction (20 min)
Giant Beavers
- III. Class Experiences
 - A. Beaver Adaptations – Being Beaver (20 min)
 - B. Nature's Post-It Notes (15 min for instructions, 30-40 min hike)
 - C. Beaver Livin' in the Lodge (20 25 min)
 - D. Can you build like a beaver? (20 min, optional)
 - E. Changing their Environment (10 min)
 - F. Beavers Over the Pond
- IV. A Play: The Beaver's Role in History (20 min)
- V. Authentic Assessment & Conclusion: Beaver Jeopardy (All ages, 10-15 min)
- VI. Reflection: Beaver Story
- VII. The Sending: Beaver Perspective