SEASIDE STORYTIME

Three Little Beavers

An Educator's Guide to the Program

GRADES: Pre-K - K

PROGRAM DESCRIPTION:
Through the story, and additional information, students will learn about: beaver habitats, how beavers have adapted to their aquatic environment, human and beaver interactions and how beavers are important to our ecosystem.

Before your class visits the Oklahoma Aquarium

This guide contains information and an activity for you to use both before and after your visit to the Oklahoma Aquarium.

FACTS ABOUT BEAVERS!

- Beavers are the largest rodent in North America and can weigh as much as 70 lbs., and reach a height of 4 feet.
- Beavers are nocturnal (active at night).
- Beavers have large orange teeth that are always growing! They must gnaw on wood to keep their teeth from growing too long.
- The term "busy as a beaver" comes from the fact that when they are not asleep, beavers are always working…looking for food, chewing on trees etc.
- Beavers chop down trees in order to get to the leaves and bark at the top of the trees. They then use the wood to build dams and lodges.
- Beavers mark their territory with scent.
- Beavers use their front paws like hands, carrying things, even while they are swimming.
- Their rear paws are webbed for better swimming.
- Beavers will slap the water with their tails to warn other beavers of danger.
- Beavers will use their large tail as a rudder to steer them through the water.
- Beaver's fur is "waterproof" and keeps them from getting too cold during the winter.
- Beavers have a clear "eyelid" that lets them see when they are swimming underwater**.**
- Many people think that beavers are a nuisance because of the dams that they build.
- A pair of beavers can cut down 400 trees a year.
- Beaver dams create wetlands that are used and important to other animals and plants.
- Beaver ponds also act as sponges, absorbing pollution that runs off the land into our streams and rivers.

RESOURCES:

Internet Resources:

www.dictionary.reference.com

www.animals.nationalgeographic.com/animals/mammals/beaver/

www.nhptv.org/natureworks/beaver.htm

www.wdfw.wa.gov/living/beavers.html

www.sylvandellpublishing.com

Books

Heilprin Diehl, Jean (2012) Three Little Beavers. Sylvan Dell Publishing

Accompanying Activity:

Build your own beaver dam (Sylvan Dell Publishing)

VOCABULARY

Adapt – changing in order to function better in your environment

Aquatic – having to do with water

Dam – a barrier that blocks the flow of water

Ecosystem – a system that is created by the animals, plants and other organisms that live there and how they interact with their environment

Environment – all of the things around a plant, animal or other organism

Habitat – the natural environment of a plant, animal or organism

Lodge – domelike beaver home

Nocturnal – active at night

Pollution – putting harmful things such as chemicals into the environment

Rudder – something used to control direction

Territory – an area of land and/or water that is controlled by someone or something

Webbed – having toes or fingers that are connected to make swimming easier

PASS STANDARDS MET:
All education programs and their accompanying materials at the Oklahoma Aquarium will meet several Oklahoma PASS objectives in various disciplines. The following list is not all inclusive.

SCIENCE

Science Processes and Inquiry

- **(grade pre-K)** **Standard 1 –** Science Processes and Inquiry
- **(grade K)** **Process Standard 1 –** Science Processes and Inquiry

Physical Science

- **(grade pre-K)** **Standard 2 –** Physical Science
- **(grade K)** **Standard 1 –** Physical Science

Life Science

- **(grade pre-K)** **Standard 3 -** Life Science
- **(grade K)** **Standard 2 –** Life Science

Earth Science

- **(grade pre-K)** **Standard 4 –** Earth Science
- **(grade K)** **Standard 3 –** Earth Science

OKLAHOMA ACADEMIC STANDARDS FOR SCIENCE MET:

K – 2

K-LS1-1
K-ESS2-2
K-ESS3-1
1-LS1-1
1-LS1-2
1-LS3-1
1-ESS3-1
2-LS2-2
2-LS4-1

Hands On: Lodges and Dams

Using sticks, branches, grass, rocks, and mud, beavers build homes, called lodges, on the shoreline or in the middle of a lake or pond.

The lodges usually have two underwater entrances, to help beavers stay away from predators. If a predator comes in one entrance, the beavers can leave through the other. The living area stays warm and dry since it is higher than the water level. The living area is about 8 feet (2.4 m) wide and is lined with bark and grass. Beavers leave a hole in the ceiling so fresh air can come in.

The only other animals that change their environment more than beavers are humans or elephants. Beavers change woodlands into wetlands and elephants change woodlands into grasslands.

If the water around their lodge or den is not deep enough, beavers will build dams out of the same materials as their lodges. The dams block the water flow, raising the water level, making new beaver ponds. Ponds are safer for the beavers to get away from land-based predators. Beavers also dig canals to make it easier to get in and out of the lodge.

Since beavers are slow moving on land, the higher level of the new pond and the canals make it easier for the beavers to reach trees for food and building materials. Beavers would much rather haul branches by swimming than by walking through the woods!

Beaver ponds become home to many wetland animals and migrating birds. As long as the beavers live in the area, they will repair the dam if it breaks or leaks. After beavers leave the area, the ponds often turn into meadows and then forests, changing the animal habitat again.

Build Your Own Beaver Dam

Find and gather sticks, twigs, rocks, pebbles, and dirt from your yard. If gathering from someone else's yard or property, make sure to ask permission first.

Find a long, deep container or pan.

Use your gathered materials to build a dam going through the middle of the container.

Pour water into the container on one side.

Does your dam hold the water back?

If not, how can you fix it so the water is blocked from getting to the other side?