

Title: Habitats: See Where We Live

Grade Level: Kindergarten

Introduction: This lesson will introduce young children to the concept of habitats. It will focus on aquatic habitats in and around our neighborhoods. Teachers will be able to reproduce photographs for use in whole group interaction and learning center activities.

Site: Cuyahoga County Watershed

State Science Content Standards:

Life Sciences

#3: Know that organisms, including people, have basic needs, which include air, water, food and space.

#5: Investigate the habitats of many different kinds of local plants and animals and some of the ways in which animals depend on plants and each other in our community.

Learning Objectives:

1. Students will define and identify habitats.
2. Students will classify animals according to their habitats.
3. Students will differentiate between those animals that live in an aquatic habitat from those that do not live in an aquatic habitat.

Materials:

1. book: **Let's Take Care of the Earth**, Rozanne Lanczak Williams, (Creative Teaching Press)
2. chalkboard/chalk
3. chart paper
4. markers
5. pictures of aquatic and non-aquatic animals
6. pictures of aquatic habitats
7. sorting mats

Vocabulary

habitat, environment, aquatic, terrestrial, leech, crayfish, salamander, mud puppy, newt, shiner, creek chub, water strider, whirligig beetle

Background Information

A **watershed** is an area of land from which all water drains to a common location.

Ponds have quiet, shallow water. Light can penetrate to the bottom, allowing many plants to grow in and around the pond. These plants provide food and shelter for many creatures. Most pond creatures live under the water, but some, like the whirligig beetle and the water strider move on the surface of the water.

Stream and **creek** water is always moving. The variety of plant and animal life depends on the speed of the current. As the current runs over the rocks and stones it

sweeps away mud and sand. The animals living there must be strong enough so that they do not get swept away. Many insect larvae can cling to stones. Crayfish can cling to rocks with their strong legs and claws.

When a **river** reaches flat ground its waters slow down and spread out. Mud and sand settles out, making a soft bottom where plants such as water lilies, spatterdock, arrowhead, pickerel weed, rushes, and sedges provide shelter for many creatures.

A **crayfish** looks like a miniature lobster. It lives in shallow streams hidden under flat stones.

A **creek chub** is a small fish with a long and slender body. It lives in small, fast streams that flow over stones and rocks.

A **leech** is a type of worm that has a muscular, stretchy body with a sucker at each end. It sucks the blood of mammals by first piercing the skin with its jaws. Then it uses a special compound to let the blood flow freely.

A **mud puppy** is a kind of salamander that remains a larva all of its life. It can be recognized by the gills around its neck. It has four toes on each of four feet.

A **newt** is a semiaquatic salamander that lives in ponds, streams, marshes, and damp woodlands. At its younger stage it is a bright orange-red color and is called an **eft**.

A **salamander** is a small lizard-like amphibian. It lives near rocky woodland creeks where it can find shelter.

A **shiner** is a type of minnow with silvery white scales, a slender body, a forked tail fin, and a transparent back fin.

A **water strider** is an insect with long slender legs with which it supports itself on the surface of the water.

A **whirligig beetle** is an insect that circles about rapidly on the surface of the water.

Procedure

1. Read the big book **Let's Take Care of the Earth** to the children.
2. Have the children "reread" the story emphasizing the pattern and repetition.
3. Discuss the meaning of *habitat* (where animals live).
4. Create a web showing habitats depicted in the book. (desert, forest, ocean, swamp, mountain, rain forest)
5. Focus on freshwater aquatic habitats. (creek, stream, pond, river, lake)
Identify and discuss those environments. (Resource screen *Aquatic Habitats*)
6. Place pictures of animals in random order in pocket chart. (Resource screens *Animals That Live in Aquatic Habitats* and *Animals That Do Not Live in Aquatic Habitats*)
7. Children select pictures of animals that live in aquatic habitats. Have them explain their answers.

Learning Center Activities

1. Children work with a partner using sorting mats. (Resource screen *Student Sorting Mat*) Separate animals into two groups—those that live in an aquatic habitat and those that do not.

2. Divide children into six groups. Assign a habitat to each group. On large sheets of paper the children draw their assigned habitat. (They can decide who will do this part of the activity.) The rest of the children will draw animals that would reside in the habitat, cut them out, and glue them in place. When finished display the habitats and have the children “guess” each habitat.

Suggested Web Sites

<http://wsrv.clas.virginia.edu/-sos-iwla/Stream-Study/Stream>

StudyHomePage/StreamStudy.HTML (easy activities for young children to determine water quality)

ExplorA-Pond (science and math activities, K-6, virtual ponds)

www.uen.org/utahlink/pond

Aquatic Ecosystems (covers majority of topics discussed, diagrams)

www.boquetrivier.org/adoptaqecosys.html

Zephyrus (kid-friendly animated science activities)

www.zephyrus.co.uk

The Adventures of Science Bob (kid-friendly activities, answers to science questions)

www.sciencebob.com

Helpful Books

Animals of Ponds and Streams, J.Becker (EMC Publishing)

Encyclopedia of Aquatic Life, Dr. Keith Banister and Dr. Andrew Campbell, (Facts on File)

Frogs and Toads, Bobby Kalman and Tammy Everts (Crabtree Publishing Co.)

Frogs and Toads and Tadpoles, Too, Allan Fowler (Children’s Press)

The Life Cycle of a Frog, Bobbie Kalman and Kathryn Smithyman (Crabtree Publishing Co.)

Peterson First Guide to Reptiles and Amphibians (Houghton Mifflin Co.)

Salamanders Secret, Silent Lives, Sara Swan Miller (Franklin Watts)

A True Book of Fishes, Melissa Stewart (Children’s Press)

Turtles and Snails (Scholastic)

The World of Dragonflies and Damselflies, Roos E. Hutchins, (Dodd, Mead and Co.)