



Grade: 1

Subject Areas:
Life Science, Language Arts,
Art

Skills: describing,
drawing, identifying,
observing, writing

Duration: 1 hour

Connections:
building, ecosystems,
habitats, engineering

Vocabulary

habitat
homes
survive
forest
meadow
stream
microhabitat
protection

Habitat— What's That?

Objective:

Students will understand the concept of a habitat and will compare three different habitats and the animals that live there.

Materials

- posters or pictures of a forest, river and meadow
- a book on habitat or animal homes
- fir or pine cones
- peanut butter
- bird seed
- plastic or metal knives
- trays or aluminum foil
- sturdy string or fishing line
- scissors
- plastic bags

Standards

Strands: Excellence in Environmental Education Guidelines

Strand 1 — Questioning and Analysis: A) **Questioning:** Learners are able to develop questions that help them learn about the environment and do simple investigations. C) **Collecting Information:** Learners are able to locate and collect information about the environment and environmental topics.

Strand 2 — Knowledge of Environmental Processes and Systems

Strand 2.2 The Living Environment: C) **Systems and Connections:** Learners understand basic ways in which organisms are related to their environments and to other organisms. D) **Flow of matter and energy:** Learners know that living things need some source of energy to live and grow.

California State Educational Standards:

Life Science (LS): 2a: Students know different plants and animals inhabit different kinds of environments and have external features that help them thrive in different kinds of places.

LS 2b: Students know both plants and animals need water, animals need food, and plants need light.

Investigation and Experimentation: 4a: Students will draw pictures that portray some features of the thing being described.

Background

All Kinds of Homes

Every plant or animal needs a habitat in which to live. Basically a **habitat** is a natural home that is able to sustain a population. Habitats vary widely from freezing arctic waters to warm tropical seas and from humid tropical rainforests to dry parched deserts. A habitat can be large, like the approximate 500 square miles necessary to support a wolverine family, or small, like a pond no bigger than a puddle that may support a successful generation of mosquitoes. This lesson will focus mostly on the habitats of animals .

Introducing the idea of a home is a good way to introduce the concept of a habitat. **Homes** offer us protection from the elements: warmth in the winter and shade in the summer. They give us a place to sleep, eat and store things.

There are many different types of homes for many different type of animals. Some animals fly while others burrow under ground. Many animals are solitary while others are social. Some animals are extremely large while others are extremely small. Regardless of size, shape, location or behavior, all animals, as well as plants, share common needs including food, water, shelter and space (air). . A habitat must provide most of these essential needs for its inhabitants. To survive is to stay alive.

The King Range National Conservation Area has a diverse range of habitats including mixed coniferous forests, coastal scrub, coastal dunes, and chaparral. The forested areas give way

to grassland habitats in the north and chaparral habitats in the south. Along the creeks riparian habitats border the waterways. In this lesson, the students will focus on the animals that live in three different types of terrestrial (land) habitats: a **forest** (dominated by trees), a **meadow** (dominated by grass) and a **stream** (fresh moving water).

In any given habitat there are little

microhabitats; these habitats are on a smaller scale. Different animals adapt to slightly different surroundings. This helps reduce competition between different animals. For instance, in a forest habitat, some animals might prefer to live in a rotten log while others might prefer the open where there is more vegetation to eat. Still others might live in the tree tops where they can forage for insects and fly away quickly

Local Animals

Here is an overview of some of the local animals and where they prefer to live that can be used in this unit:

Forest Habitat

tree squirrels (mammal)
alligator lizard (reptile)
beetles (insects)
salamander (amphibian)
robin (bird)
banana slug (mollusk)

trees
forest edge
forest litter
under downed wood
tree branches
moist areas

Meadow Habitat

mice (mammal)
hawk (bird)
toad (amphibian)
spiders (insect-like)
snake (reptile)

meadow
tree near a meadow
bases of trees or shrubs
grass
hole in the ground

Stream Habitat

raccoon (mammal)
fish (fish)
insect larva (insect)
turtle (reptile)
egret (bird)
frog (amphibian)

along edges
pools of water
rocks
logs and rocks
banks of the stream
nearby vegetation



in the face of danger. Whatever habitat they prefer, it offers them **protection** or a place of refuge.

As more humans inhabit the world, there is less space available for wildlife. The largest contributor to species decline worldwide is habitat loss. There are many ways people can provide habitat for wildlife including making corridors and planting native plants. In this lessons, students will make simple hanging feeders for birds.

Local Connection

Tide pools

A great place to explore a unique habitat is the intertidal zone along the ocean shore. Here lies the boundary between land and sea which is in constant change. The intertidal zone is affected by high tide when it is covered by water, and low tides when it is exposed to air. As water recedes during low tide, pools of salt water are trapped and remain behind. These tide pools are often loaded with abundant plant and animals. People have been harvesting from these areas for thousands of years and other animals like sea gulls and octopus take advantage of the bounty as well.

Tide pools offer many advantages to organisms that have adapted to living here. Wave actions supply a constant supply of oxygen and nutrients. The calm shallow water provides many hiding places and surfaces to drill into. The animals that live here are mostly invertebrates like crabs, sea stars, sponges, sea anemones and mollusks. Mollusks include shelled animals like limpets, snails and chiton. Looking for animals on land can be a challenge, but here you are guaranteed to see something everyday.



Activity 1: Searching for Habitats

Preparation

Before taking the students outside, take a walk around the school yard looking for animal homes.

Procedure

1. Gather the students together and begin introducing the concept of a habitat being a home. Discuss the benefits of living in a home. Ask them questions about homes. You may want to only allow one student to give an answer for each question in order to save time. Young students love to talk.

2. Give a simple definition of a habitat and write in on the board. Sit the students down on a reading rug and read a book on animal homes. Ask the students to name the different habitats in the pictures. Explain what the basic necessities for wildlife and people are (food, water, shelter, air, and space) and write the words on the board or chart. (change the worksheet to 5 words?) Say the words and have the students repeat them. If possible, break the class into two groups: one will

Materials

- posters or pictures of a forest, river and meadow
 - a book on habitat or animal homes
- (option: Animal Homes by Debbie Martin)

go outside and the other will fill in the worksheet on habitats (see attached).

3. The group that goes outside should search for evidence of different animal homes or habitats. Make sure they stay in a group. Be sure to look for common animals like birds, squirrels and insects. If there are semi-wild places near the school you might be able to find a pack rat's nest or a rotten log full of termite grubs. Be sure to look for evidence of past occupation as well. These things might include an abandon bird's nest, a spider's web, or a hole in the ground that looks like it may have been made by an animal. The more you look the more you are likely to find. Bring the students back to the classroom and together list what kinds of microhabitats they observed. Switch groups.

- *What types of things do you like about your home?*
- *What does a home provide for people?*
- *What do people do in their homes?*
- *What kind of homes do animals have?*
- *What benefit do animal homes provide?*
- *Why is a home important to a plant, an animal or a person?*
- *How can a home protect you?*

Activity 2: Making a Hanging Bird Feeder

Preparation

Make a bird feeder ahead of time to show the students what the final feeder will look like.

Procedure

1. Explain to the students that humans can help wildlife by creating habitat. One way to make a sustainable habitat is to have food nearby. Tell the students that they are going to help the local birds by making bird feeders. Have

Materials

- fir or pine cones
- peanut butter
- bird seed
- plastic or metal knives
- trays or aluminum foil
- sturdy string or fishing line
- scissors
- plastic bags



Activity 2: Making a Hanging Bird Feeder (cont.)

the students work in groups. Using the knife, smear peanut butter into the openings of the fir or pine cone. (Rachel was going to make them a different way??) Once most of the holes have been filled with peanut butter, roll the cone in bird seed. Students may need help putting on the peanut butter so you may want to have an area where they can roll them in bird seed after the peanut butter has been applied. At the top of the cone securely tie a string to the top or glue a string to the top so that the feeder can freely hang from a branch of a tree. Let dry overnight. If the students want to take them home, put the cones into

a plastic bag with their name on it. A word of caution: some students are allergic to peanut butter.

Extensions

- Make a classroom habitat center next to a window if available. In this habitat center have the students add materials they have found that from local wildlife. (see kids planet link)
- Make a collage of booklet about different animals and plants based on where they live.
- Count the number of animals shown in a habitat as a math lesson.
- Sings songs about animals and their homes.
- Make a classroom terrarium
- Bring in a live animal to the classroom
- Take a field trip to the Community Park or other nearby park.

References

- A Habitat is a Home worksheet: <http://www.teachersparadise.com>
Easy Bird Feeders for Kids: <http://www.suite101.com/content/easy-bird-feeders-for-kids-a6191>
Everybody Needs a Home, Project Wild, Elementary Activity Guide, WRECC, 1986, pg 31-32 (use more recent version?)
Habitat — What's That?:<http://www.learnnc.org/lp/pages/3942>
Hanging bird feeders: <http://www.care2.com/greenliving/make-easy-bird-feeders.html>
King Range National Conservation Area Draft Resource Management Plan and Draft Environmental Impact Statement, U.S. Department of Interior, BLM, Arcata Office, Jan. 2004
Martin, Debbie, Animal Homes, An Usborne Lift-the Flap Book, Usborne Publishing, 1999
Perles, Kere, First Grade Lesson Plan: Habitats: <http://www.brighthub.com/education/k-12/articles/45338.aspx>, 2009
Project Learning Tree Environmental Education Activity Guide PreK-8, 2nd Edition, 1994, American Forest Foundation Which lesson?
Tide Pools, Animals, <http://www.seaworld.org/wild-world/ecosystems>, 2011





Name: _____

Date: _____

A Habitat is a Home

A habitat gives plants and animals a safe place to call home

- 1.** A good habitat has four things:

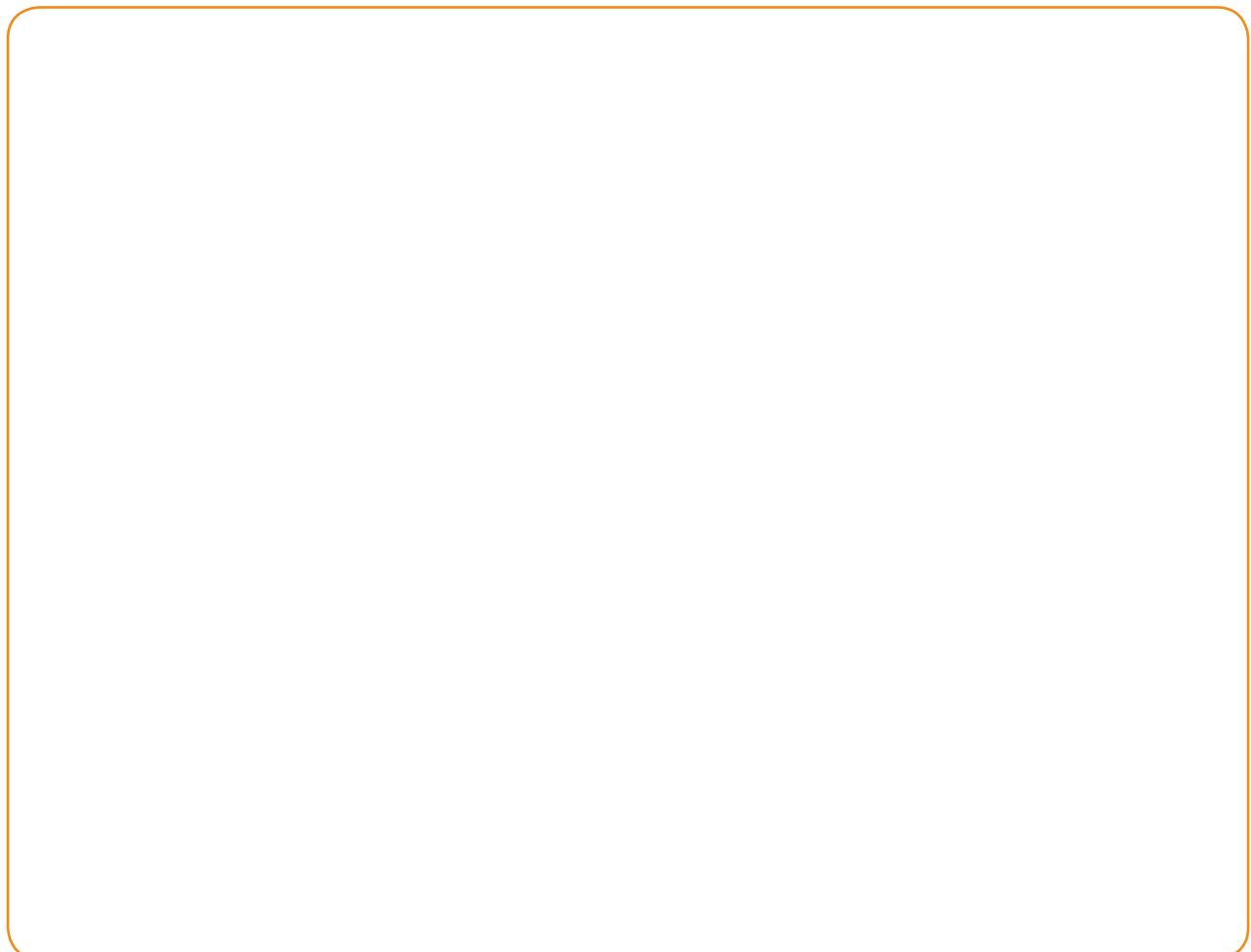
_____ to breathe

to eat

_____ to drink

for protection

- 2.** Draw a picture of you in your habitat. Show how it is a good habitat



Name: _____

Date: _____

Where Do They Live?

Cut out the animals and glue them in their correct habitat.



Forest



Coastal Meadow



Sea

