

# Animal Habitats

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## Overview

What is your favorite animal? Where would you normally find this type of animal? Animals live in all kinds of different habitats. Can you think of any types of animals that live in a desert? What about a rainforest? In the ocean? In the arctic tundra? The Earth has many different types of environments. In each of these environments or habitats, you can find different types of plants, animals, weather and insects. We are going to study some different habitats this week. Be on the lookout for unique plants and animals in each habitat. Look closely! The camouflaged animals may be trying to hide!

## Background Information

A **habitat** is where plants, animals and other organisms live. Much like humans, animals need 4 basic things in order to survive: **air, water, food, and shelter**. If an animal can not get food, water or one of these other needs met in a certain place, that animal will move on to a new home. Animals' bodies are suited for their natural homes. Animals can **adapt** to new environments when needed. Some animals migrate between different habitats. Different animals need different types of habitats. For example, a fish needs clean water. Some types of fish need warm water and others prefer cold or even icy water.

Many plants and animals will share the same habitat, community or **ecosystem**. Animals and even plants often compete with each other for food and water. Habitats are always changing. Pollution can devastate a habitat. When a certain plant or animal is threatened or nearing **extinction**, it becomes very important for us to protect their natural habitat.

There are many different types of habitats. **Deserts** are dry, receiving very little rainfall each year. Animals in the desert can survive in extreme heat with very little water. They can be extremely hot during the day and extremely cold at night. Hyenas, snakes, roadrunners and lizards live here. **Rainforests** are very lush with lots of trees and shrubs. Tigers, sloths, toucans, and orangutans live in this humid and warm habitat. **Polar arctic** regions are extremely cold and icy. Penguins, seals and whales are commonly found in polar arctic regions. **Oceans** are large, aquatic habitats.

Dolphins, sharks, sea lions and whales live in the ocean. **Mountains** are high in altitude. They are homes to cougars, deer, black bears, and big horn sheep. **Savannahs** are dry for half the year and wet for half the year. Lions, elephants, giraffes, and zebras live in savannahs. Animals have lots of different needs. Next time you see one, think about where it lives and what it might need to survive.

## Main Ideas

- A **habitat** is where plants, animals and other organisms live.
- Animals need 4 basic things in order to survive: **air, water, food, and shelter**.
- Many plants and animals will share the same habitat, community or **ecosystem**.
- When a certain plant or animal is threatened or nearing **extinction**, it becomes very important for us to protect their natural habitat.
- Some different types of habitats are: **deserts, rainforests, polar arctic regions, oceans, mountains** and **savannahs**.
- Animals use **camouflage** to blend in with their surroundings either to protect themselves or to more easily catch their prey.
- As humans, we are responsible to be good stewards of this Earth on which we live, protecting animals and their habitats. If we pollute and destroy habitats, animals may become **extinct**.

## Materials Needed

- *Where in the Wild* by David M. Schwartz and Yael Schy
- Aluminum pans (to be used in the construction of habitats and in the oil spill activity)
- Glass jar with toilet paper tube
- Container with ice water
- A large plastic bag
- Small plastic bags with Crisco
- Variety of literature from Martin Library on animals and their habitats
- Photos of oil spills
- Vegetable oil
- Food coloring
- Bowl

- Cotton balls
- Popsicle sticks
- Paper towels

## Preparation

1. Read "Background Information" to become more familiar with the concepts of habitats and ecosystems.
2. Read through *Where in the Wild* by David M. Schwartz and Yael Schy. Prepare questions that you can ask along the way.
3. Make sure that you have all the supplies that you will need for each day's experiment or craft.

## Opening

What is your favorite animal? Where would you normally find this type of animal? Animals live in all kinds of different habitats. Can you think of any types of animals that live in a desert? What about a rainforest? In the ocean? In the arctic tundra? The Earth has many different types of environments. In each of these environments or habitats, you can find different types of plants, animals, weather and insects. We are going to study some different habitats this week. Be on the lookout for unique plants and animals in each habitat. Look closely! The camouflaged animals may be trying to hide!

### Make Your Own Habitat

**To begin our unit on habitats, take students outside to construct their own habitats. Explain to students that a habitat is where plants, animals and other organisms live. Animals need 4 basic things in order to survive: air, water, food, and shelter. Compare and contrast two different types of habitats: deserts and rainforests. What kinds of plants, animals and weather would you find in each? Divide students into partners. Give each team a tray and have them construct either a desert or a rainforest habitat in their tray. Give them 15 minutes to construct their habitat. They may include small insects or worms in their habitat.**

Animals often blend in with their habitat. Why do you think that animals are camouflaged?

**Read through *Where in the Wild* by David M. Schwartz and Yael Schy. Have students try to spot the camouflaged animal in each**

photograph. Explain that animals try to blend in with their surroundings either to protect themselves or to more easily catch their prey.

### Literature & Picture of an Animal Habitats:

Give students time to look through a variety of literature on different animals and their habitats. Have them Pick one type of habitat and then draw or paint a picture of that habitat.

### A Worm Habitat

Material: glass jar, dirt, an empty toilet paper roll (can be used to force worms to stay towards the outside of the jar so that students can view them better)

Review the 4 basic things animals need to survive with the students. Explain to the students that today we are going to be collecting some class pets. Take students outside. Divide them into partners. Give them 15 minutes to see which group of partners can find the most earthworms. When they find a worm, have the students come and place it in your jar of dirt. Students can use rocks or sticks to dig. You will be surprised how many they find in such a short time. Keep the dirt somewhat moist. Allow students to feed and hold the worms on the following day. Worms eat rotting material in the soil. Leaves, fruit or vegetables will work fine. Release the worms at the end of the unit back into the wild.

Note: You can alternate layers of dirt and sand in your jar. Then students can observe how the worms mix the dirt and the sand all together over the next few days.

## **Further Exploration**

### Science Blubber Experiment

Discuss characteristics of polar habitats. Ask students to name some of the animals that live in these extreme temperatures. How do the animals cope with such cold temperatures? Perform the following experiment.

Materials: a pitcher, bucket or container with ice water, large plastic bags, small plastic bags with Crisco

Have students take turns placing their hands in a large plastic bag and submerging their hands in ice water for 30 seconds. Discuss the results. Next, have students do the same experiment placing their

**hand in between the two small plastic bags of Crisco.** Do they notice a difference?

Discuss how animals found in arctic regions have layers of blubber under their skin to help them keep warm.

### **Stopping an Oil Spill Experiment**

Have students brainstorm ways that humans could destroy an animal's habitat. Discuss the idea of animals that have become extinct. Have students discuss what they already know about oil spills. Reference the huge oil spill in the Gulf of Mexico in 2010. Chemical and environmental engineers helped to clean up this oil spill.

**Materials: aluminum pans, photos of oil spills, vegetable oil, food coloring, bowl, water, cotton balls, small pieces of a paper towel, and a popsicle stick per each group Optional: a few feathers, rocks, or leaves**

**Give each group an aluminum pan filled partway with water. In a separate bowl, mix 4 tablespoons of vegetable oil mixed with 3 drops of food coloring for each pan. Pour the oil into the center of the aluminum pan. Have students try to clean up the oil before it reaches the side of the pan.**

**Have students work in small groups. List some observations about this oil spill. Together, they should formulate a plan for how to clean up the oil spill.** Were the students able to stop the oil before it reached the side of the pan? Discuss different ways that engineers try to clean up oil spills. Show pictures and discuss different ways that oil or other pollutants can destroy habitats. What steps should humans take to prevent this?

### **Wrap Up**

- Have students discuss the difference between deserts, jungles, mountains and poles. Explain the relationship between weather, temperature, and climate.
- Have students release their worms back into the wild.
- Give students time to look through a variety of literature on different animals and their habitats. Have them pick one type of habitat and then draw or paint a picture of that habitat.
- Oil Spill Experiment

## Signs of Success

The student will...

- Demonstrate engagement and curiosity in creating their own habitats.
- Can explain to a partner what plants and animals need in order to survive.
- Demonstrate concern for preserving our environment and protecting plant and animal species.

## Other Books to Explore

**Allsburg, Chris Van.** [Just a Dream](#). Houghton Mifflin Co (Juv); ISBN: 0395533082

**Amsel, Sheri.** [\\*A Wetland Walk](#). Brookfield CT: The Millbrook Press, 1993. ISBN 1562942131

**Arnosky, Jim.** [Guide to Knowing Animal Habitats](#). New York: Simon and Schuster Books for Young Readers, 1997. ISBN 0689805837

**Baker, Jeannie.** [Where the Forest Meets the Sea](#). William Morrow & Company; ISBN: 0688063632

**Behn, Harry.** [\\*Trees](#). New York: Henry Holt and Co, 1992. ISBN 0805035508

**Brenner, Barbara.** [The Earth Is Painted Green : A Garden of Poems About Our Planet](#). Scholastic Trade; ISBN: 0590451340

**Burningham, John.** [Hey! Get Off Our Train](#). New York: Crown Publishing, 1989. ISBN 0517882043

**Gibbons, Whit and Gibbons, Anne R.** [Ecoviews - Snakes, Snails and Environmental Tales](#). Tuscaloosa: University of Alabama Press, 1998 ISBN 0817309195

# Pennsylvania Educational Standards

**Reading** 1.2.3 A, C, E  
1.6.3 A, B  
1.8.3 A, B

## **NRC National Science Educational Standards**

Content Standard A: Science as Inquiry

Content Standard B: Physical Science

## **AAAS Benchmarks for Science Literacy**

12A Values and Attitudes

12D Communication Skills

## **Sample Schedule For Making It A Week Long Unit**

### **Day 1:**

Introduce the concept of habitats

Make your own habitat activity

Discuss the differences between deserts and rainforests.

### **Day 2:**

Review the concept of habitats and the 4 basic needs of animals

Read *Where in the Wild* by David M. Schwartz and Yael Schy

Have students find each of the camouflaged animals.

Variety of literature on animals and their habitats

Student Pictures

### **Day 3:**

Have students catch and create their own worm habitat.

### **Day 4:**

Allow students to hold and feed the worms.

Discuss characteristics of polar regions.

Have students perform the Science Blubber Experiment.

### **Day 5:**

Review what you learned about animals and their habitats.

Perform the Oil Spill Experiment.

Discuss how we as humans can better protect animals and their habitats.