

Animals and Their Habitats*

Overview

Students will work as a group to describe different habitats found in Oregon by discussing the vegetation, water resources, temperature, and organisms found in the areas. Students will review different adaptations that help animals survive in each habitat. The class will then participate in an activity where they place animals in their appropriate habitats by using adaptations as evidence. This lesson can be used after your visit to the Museum of Natural and Cultural History.

Objectives

Students will:

- Describe habitats found in Oregon
- Understand how animals adapt their habitats
- Understand which animal lives in which habitats by using adaptations as evidence

Vocabulary:

- **Adaptation:** a change or the process of change by which an organism becomes better suited to its environment
- **Habitat:** the natural home or environment of an animal, plant, or other living thing
- **Climate:** the composite weather conditions of a region
- **Ecosystem:** a group of living organisms interacting with their environment

Background Information

Animals exist in diverse habitats and ecosystems. By describing the climate, animals, vegetation, and water sources of each area, we can define each habitat. Oregon is home to many different habitats. The wet coast, flat grasslands, dry deserts, and tree-filled forest are just a few examples. A range of plants and animals thrives in each of these habitats, often due to their adaptations over time.

As climates and environments changed, many animals adapted to survive. A rodent's short fur, a rabbit's long ears, or an otter's tail each contributed to their survival. Students will participate in activities to describe Oregon's different habitats, as well as placing animals in those habitats based on their

Subject

Science



Grade

4th-8th

Time

45-60 minutes

Materials

- Chalkboard, dry erase board, or Smart board
- Four poster boards
- Markers
- Animal cards

Set Up

- Four corners or spaces in the classroom where several students can stand at once.
- Space in the center of the classroom for several students to stand.

Standards (NGSS)

4-LS1-2: Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways.

5-LS2-1: Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.

MS-LS1-4: Use argument based on empirical evidence and scientific reasoning to support an explanation for how

structural adaptations.

Classroom Activity (40-50 min)

Intro (5 min): Remind students about their field trip to the Museum of Natural and Cultural History. Ask if they remember which animals they saw while there (horses, dogs, salmon, giant sloth, etc.). Tell students to describe some adaptations each animal developed over time (horse's hooves, dog's sharp teeth, salmon's saber-teeth, etc.). Tell students each of these animals adapted due to changes in their habitats.

Ask students to name some habitats found in Oregon (desert, forest, coast, etc.). Ask students what elements to consider when describing a habitat (plants, animals, temperature, etc.). Tell students they must consider which plants and animals live in the habitat, where they get water, and what the climate is.

Activity 1 (15-20 min): Students will work as a class (or in small groups) to describe four different habitats (forest, grasslands, desert, and coast) found in Oregon. Students will describe four elements: climate, vegetation, water sources, and animals. They will then discuss some possible adaptations animals developed to survive in those environments.

Either work with the class to describe each habitat by writing descriptions on four large poster boards, on the whiteboard, or Smart board, or break students into small groups, giving each group a habitat and a poster board and markers.

Once students have completed their descriptions, have each group describe their habitat and allow classmates to give feedback. Tell students they will now do an activity to place animals in the most suitable habitats.

Activity 2 (20-25 min): Have students place their posters in four corners around the room (make sure there is enough space to fit several students in front of each poster). Tell students they will each receive an animal card. When students receive the card they may only look at the picture of the animal. If students need extra help, they may look on the back of the animal card to gain a better understanding of how it interacts with its environment.

Tell students they will walk to the habitat they think the animal on their card lives. Tell students to consider what adaptations may affect which habitat the animal would survive in. If necessary, the teacher may complete one example, where students work through the process together. If students have no further questions, allow them to walk to the habitat where they think their animal would survive.

characteristic animal behaviors and specialized plant structures affect the probability of successful reproduction of animals and plants respectively.

MS-LS2-4: Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.

MS-LS4-4: Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment.

Once each student is in place, have each explain why his or her animal would survive in that habitat. Allow classmates to give respectful feedback. The process may be repeated with new animals. *Note: some animals may be able to survive in multiple habitats.*

Conclusion (5-10 min)

Ask students how they decided which habitat their animal would survive in (fur, tail, how it hunted, etc.). Tell students each animal developed adaptations in order to survive in each environment and will continue to adapt as vegetation, climate, and water resources change. If they can't adapt in time, they may go extinct. Ask students about some ways humans adapt to their environment (clothing, technology, etc.).

Optional Lesson Adaptations

To make the activity more active: write the four elements students need to consider when describing each habitat so they may reference the directions if necessary.

Students may be broken into teams, where one member from each team "competes" to get their animal to the correct habitat. Students will have 45 seconds to get from the center of the room to the correct habitat. If students make it to the correct habitat in the allotted time, they receive two points. If the team member is in the incorrect place, their team members may tell them the one habitat they think is correct and the student may move to that corner. If they are correct after help from their team, they receive one point.