



Habitat Model

Grade Level: 2-5
Length: 3 Hours, can be divided into multiple sessions
www.pwsrcac.org/lessons

Adapted from a lesson plan by Bonnie Jason

NGSS Standards

3-LS4-3 Construct an argument with evidence that in a particular habitat, some organisms can survive well, some survive less well, and some cannot survive at all.

Crosscutting Concepts

Scale, Proportion, & Quantity In considering phenomena, it is critical to recognize what is relevant at different size, time, and energy scales, and to recognize proportional relationships between different quantities as scales change.

System & System Models A system is an organized group of related objects or components. Models can be used for understanding and predicting the behavior of systems.

Related Resources

Pair With Oh Moose Game;
Stake a Claim Lesson

Overview

All living organisms need habitat to survive.

Objectives

- Students will know that a habitat is a natural home.
- Students will construct a habitat model for an animal.
- Students will be introduced to the specific habitat requirements of different animals.

Materials

- ☐ Graph Paper
- ☐ Whiteboard (or easel with paper)
- ☐ Dry Erase Markers (or markers)
- ☐ Pencils/Pens/Markers
- ☐ Large Pieces of Cardboard (for model foundations-can be reused cardboard boxes)
- ☐ Local Animal Identification & Information Books, Access to Online Resources, and/or Access to Experts in the Community
- ☐ Habitat Registration Form
- ☐ Miscellaneous Construction Items (popsicle sticks, pipe cleaners, construction paper, cardboard scraps, tissue paper, egg cartons, wood scraps, felt pieces, yarn, glue, tape, etc.)

Background

This activity is designed to introduce the concepts of habitat and habitat requirements. The construction of models is a creative way to make these concepts more concrete. Feel free to have the students

Notes

craft their models from whatever you have available. It could also be a good activity for students to work on outside of school.

Preparation

1. Cut the cardboard into pieces for the foundation.
2. Prepare and arrange the available construction items.
3. Make enough copies of the Habitat Registration Form for each student.

>>Teacher tip: If possible, bring in a guest speaker who can share about a number of local animals. This person could be a hunter, fisherman, biologist, naturalist, artist, or wildlife/fisheries manager or anyone else in the community that has expertise about animals and their habitats. If you are creating the model over the course of multiple days, encourage students to ask their families, neighbors, and other local community members about the habitat requirements of their animal. This helps students to draw on different types of knowledge and expertise and make connections within their communities.

Introducing the Lesson

Begin the lesson with a whole group brainstorming session. Choose an animal that students know well, such as an eagle. Write the name of the animal at the top of the whiteboard. Ask students what the eagle needs to survive. Use leading questions as necessary. As students shout out their ideas, organize them into three unlabeled categories based on food, shelter, and water. After each list has been developed, ask the students what similarities they see within each category. Introduce the terms. Discuss how these habitat requirements must all be present to be useful to the animal.

Activity

1. Break the class into small groups. Instruct each group to choose a local animal with which they are familiar. Have resources available so that students can research their animal to get more information. These resources can include books and identification guides or access to online resources. Inviting a guest speaker to share about local animals and habitats is a great option.
2. Tell the groups that they are going to construct a model of their animal's habitat that includes all of the habitat requirements.
3. Ask students to first work together in their group to sketch a draft of their habitat on graphing paper, making sure that it includes all the

habitat requirements for their animal. Have students use the graph paper to ensure that there are large areas of the habitat devoted to each of the three requirements. Discuss the concepts of proportion and area more directly if you would like to connect with math topics.

4. Once they have completed the drafting process, groups should then construct their habitat models using the provided materials. As the models dry, students should complete the Habitat Registration Form to make sure their habitat meets the requirements and their animal will be able to survive there.

Wrap-up

Tour all of the habitats and have each group present their animal, where it gets its food, where it gets water, and where it takes shelter within the habitat. Discuss similarities and differences between habitats and animal requirements. Ask students what might happen to the animals if a habitat changed. (It might be harder for some animals to survive but easier for others in a changing habitat). If possible, go outside to observe habitats near the school and decide what animals might be able to survive in nearby habitats.

Assessment

Have students create a poem, story, or explanatory caption about their habitat and display it alongside their habitat model in a visible area. Instruct them that the caption, poem, or story should describe what aspects of the habitat model make it possible for the animal to survive well there. Ask each student to either include written information about the evidence they are using to support their assertion or share this evidence with you verbally. Students who successfully meet the performance expectation will be able to link information from different sources about the animal's habitat requirements with their explanation of how the habitat they've modeled makes it possible for their animal to survive well there. (Example: I read that squirrels make nests in trees and store food in underground caches. I've seen squirrels eating spruce cones before, and my uncle told me that they also eat mushrooms, berries, and eggs. I think squirrels can get water from ponds, creeks, or even puddles. My habitat has lots of trees for them to make nests in, and lots of spruce trees so the squirrels can get plenty of food. There is soft dirt for them to dig into to hide their food, and a creek for the squirrel to get water from).

Pair With

- Oh Moose Game
- Stake a Claim Lesson Plan

Habitat Registration Form

Before your habitat (home site) can be approved by the Housing Commission, you must answer the following questions. Please return to your habitat site and fill out this application. Thank you.

1. Your animal name

2. Location of your home site

3. Materials needed for construction or repair of your home:

4. How are you protected from weather, wind, rain, snow, etc.?

5. Where do you get your food?

6. Where do you store your food?

7. Where is your water supply? How far is it from your home?

8. What do you do with your waste?

9. Would your children be safe in your home if you left them alone?

10. How do you improve your community?
