

Habitat Lap Sit

Objectives

Students will (1) identify the components of a habitat, (2) recognize how humans and other animals depend upon habitats, and (3) interpret the significance of loss or change in habitat in terms of people and wildlife.

Method

Students physically form an interconnected circle to demonstrate components of habitat.

Materials

None

Background

People and other animals share some basic needs. Every animal needs a place in which to live. The environment in which an animal lives is called a habitat. An animal's habitat includes food, water, shelter, and space in an arrangement appropriate to the animal's needs.

An animal will be affected if any of the components of habitat are missing or are significantly affected so that the arrangement for the indi-

vidual animal or population of animals is no longer suitable. The impact will not necessarily be catastrophic, but it can be. There are additional limiting factors beyond those of suitable food, water, shelter, and space. For example, disease, predation, pollution, and climatic conditions can affect an animal's survival.

Within a biological community, there are interrelationships and interdependencies between plants and plants, between plants and animals, and between animals and animals. These interrelationships and interdependencies are important.

Procedure

1. Have the students form a circle, standing shoulder to shoulder. Ask them to name the components of habitat, with the first student saying food, the next saying water, the third saying shelter, and the fourth saying space. Continue around the circle until each student has called out a habitat component.
2. Ask the students to turn toward their right, at the same time taking one step toward the center of the circle. They should be standing close together, with each student looking at the back of the head of the student in front of him or her. (See the photos on page 63.)
3. Ask everyone to listen carefully. Students should place their hands on the shoulders of the person in front of them. At the count of three, ask the students to sit down slowly on the knees of the person behind them, keeping their own knees together to support the person in front of them. As the students are sitting say, "Food, water, shelter, and space in the proper arrangement are needed to have a suitable (good) habitat." The term "proper arrangement" is represented by the students' intact, lap-sit circle.

Grade Level: 5–8

Subjects Areas: Science, Environmental Education, Expressive Arts

Duration: one 20-minute session

Group Size: 15 to 45 students

Setting: outdoors preferred; indoors possible

Conceptual Framework Reference: HNIIA1

Key Terms: habitat, food, water, shelter, space, arrangement

Appendices: Simulations

continued

4. The students at this point may either fall or sit down. Discuss with the students the necessary components of suitable habitats for people and wildlife.
5. After the students have a better understanding that food, water, shelter, and space are necessary for any animal's survival, and that the appropriate arrangement comprises a suitable habitat, let the students try the activity again. This time ask them to hold their lap-sit posture. As the students lap sit still representing food, water, shelter, and space in their appropriate arrangement—identify a student who represents water. Tell the students, "It is a drought year. The water supply is reduced by the drought conditions." At this point, have the student who was identified as representing water remove himself or herself from the lap-sit circle. At this point, the circle will either collapse or suffer some other disruption. Other ways that educators can illustrate varying conditions could be to remove a student from the circle because of pollution of water supply, urban development that is limiting the availability of all habitat components, soil erosion affecting food and water supplies, and so on.
6. Ask the students to discuss what this activity means to them. Ask them to summarize the main things they have learned. They could include the following:
 - Food, water, shelter, and space, in an appropriate arrangement, can be called habitat.
 - Humans and other animals depend on habitat.
 - Loss of any elements of habitat influence the animals living there.
 - The components of habitat must be in an arrangement that meets the needs of the individual animals or populations of animals in order for the animals to survive.

Variation

Have the students form a circle, holding hands. Walk around the circle, first naming one student as an animal of a particular habitat. Name the

next four students in the circle as food, water, shelter, and space for that animal. Repeat the process until all the students are involved. When all students have been designated as an animal or as components of an animal's habitat, comment on the fact that they are holding hands. This arrangement represents the idea that all things in an habitat are interrelated. Briefly discuss the idea of interrelationships. Then move the students into the lap-sit arrangement described in the Procedure section. Remind the students that they noticed all elements of the ecosystem were interrelated when they were holding hands. Do the lap sit to signify the dependence on one another. Discuss interrelationships and interdependencies in ecological systems.

Aquatic Extensions

Do "Habitat Lap Sit" from an aquatic perspective. Have students form a circle, holding hands. Name one student as an animal in an aquatic ecosystem. Name the next four students in the circle as food, water, shelter, and space for that animal. Repeat the process until all the students are involved. Finish the procedure as it is described in the Variation section. Do the activity more than once, picking a different aquatic ecosystem each time—to emphasize that all aquatic animals, in any aquatic ecosystem, need food, water, shelter, and space in a suitable arrangement in order to survive.

Evaluation

1. What are the five essential components of habitat?
2. Explain how the arrangement of food, water, shelter, and space is important to humans and other animals.
3. Which would probably have the greater long-term impact on the wildlife living on a farm in Iowa:
 - a. a severe winter that killed many animals?
 - b. the development of part of the farm into a shopping center?

