

Trees as Habitats Lesson Plan

Duration: 50 minutes

Age group: 4th-6th Grade

Program Description: Students will learn what an animal's habitat is by answering basic questions for what an animal needs to live; food, water, shelter, safe place to raise young, and space. They will describe how different animals use trees as habitats. They will search the forest for clues of habitats in trees. They will also learn how an animal may have problems finding a habitat due to natural or man-made causes.

Michigan GLCE's: SCI: S.IP.03.11-15; S.IA.03.11-15; S.RS.03.18; E.ES.03.52.

Sources consulted:

1. National Wildlife Federation: Habitats. Nature Scope Kit. pp. 1-6; 17-24.
2. Stanforth, Kelly. Habitat Match. Family Science/Forest Night Program.
3. Pre K-8 Project Learning Tree Environmental Education Guide

Objectives:

At the end of the lesson, students will be able to:

1. List the 5 needs of an animal that make up its habitat (food, water, shelter, space, and air in the proper arrangement).
2. Give examples of different habitats: wetland, conifer forest, grassland, polar ice caps, etc.
3. Give examples of animals that use trees as part of their habitat. (*squirrels, chickadees, eagles, woodpeckers, deer, cardinal, caterpillars, etc.*)
4. Find signs of animal habitat use outdoors.
5. The students will discuss how humans can help or harm an animal's habitat

List of Materials Needed

Per teacher:

- Basic Needs Game: ~25 paper plates/plastic lids, ~ 25 of each type of basic need card (shelter (brown), water (blue), food (green) = paper squares or colored chips
- Animal Cards: tree frog, squirrel, woodpecker, owl, bear, fox, centipede, pillbug, deer, rabbit, coyote, spider
- White bed sheet for spider search
- Habitat Impact Cards (place on a clipboard or in plastic sleeves): *roads, invasive species, construction, loss of food, drought, storm/high winds*

Per student:

- Tree Habitat Scavenger Hunt & pencil

1. Introduction: (5 min)

A. Ask students about their Home/Neighborhood?

1. Do you get food there?
2. Do you get water there?
3. Do you have shelter (house or apartment)?
4. Do you have enough space?

That is your Habitat!

C. What is a Habitat? a habitat is a specific area where an animal lives where it can meet its needs for food, water, shelter, and space, like a neighborhood or community.

D. Ask the students what they absolutely have to have to survive in their habitat?

1. Food
2. Water
3. Shelter
4. Space
5. Air

4. Animal Basic Needs ~ Musical Chairs (10 minutes)

A. Arrange paper plates/plastic lids in a large circles so that there is one square for every two children. Spread out food, water and shelter cards in the center of the circle, the number of each should be equal to the number of paper plates/plastic lids you are using. Explain that you will be playing a game. Students will need to chant: “shelter, water, food, space” or sing a song.

B. Explain that the object is for the students to end up on a paper plate with all of their basic needs. Tell students that the paper plate represents space and they will gather their other basic needs. Explain that they won’t need to gather air because it is all around them.

C. Explain that you will all sing the song and when the music stops they will have to grab one basic need card and get to a paper plate to survive the first round. Don’t necessarily tell them that they have to have one of each card to survive, just let them choose at random at this point. Any student that did not find a paper plate/plastic lid or get a basic need card the first round does not survive. They can go to the sideline and help chant. Repeat for round two and three. After round three, check to see if the survivors met ALL of their basic needs. They need to have one of each type/color of basic need cards, otherwise they didn’t meet all of their needs and did not survive. Usually there are not too many students who survive. Ask the students what they would do differently if they played again? Discuss why all the animals did not survive? Sometimes there is not enough for all animals to meet their needs.

4. Trees as Habitats (10 min.)

Have students work with in small groups. Pass out one animal card to each pair/group of students. The students have to decide how trees are an important part of their animal’s habitat. Have the students share their answers.

Animal cards: tree frog, squirrel, woodpecker, owl, bear, fox, centipede, pillbug, deer, rabbit, coyote, spider

5. Trees as Habitats Scavenger Hunt (20 minutes)

Ask students to think of all the different animals that may use trees as part of their habitat. We are going to search for signs of shelter, food and water in trees. Ask them for examples of each of these that they think they might find on their walk.

- Give each group: Tree Habitat scavenger hunt sheet & pencil
- Go over unfamiliar terms on the scavenger hunt with the students (gall, lichen, etc.) Remember that insects are animals, too!
- Lead students on a walk through the forest and let them explore for signs of habitat. Remind students that they must always be able to see you. Tell students to replace any logs that they move to look under during the scavenger hunt.

6. Spider Search

During or after the scavenger hunt, show students how to find spiders in the trees –place or hold a white sheet under the tree and then shake the branches. Check the sheet for any spiders that may have fallen out of the tree –some of them can be very small! Spiders can be found even in cold weather.

7. Habitat Impact Game (15-20 min.) (if time allows)

- Ask students how their animal might have troubles getting to their habitat or what could cause their habitat to be in “short” supply? List possible impacts to animal habitats: *roads, invasive species, construction, loss of food, drought, storm/high winds*
- Students will need to run from a starting line to a finish line, or in a designated loop. For each round, the instructor will hold up one Habitat Impact Card.
- Designate one student or chaperone to stand in one spot and try to tag the animals as they run by in search of habitat. The animal runners will try to attempt to ‘get home to their habitat’ without being tagged by any obstacle within the established boundaries.
- If tagged, the animal ‘dies’ and must move to center or sidelines until all animals have either safely arrived home or been stopped by the impact. You could also emphasize the need for space for the animals by first making the boundaries small (more obstacles stop animals) and then enlarging them, you could also introduce the predator around this time, comment on the differences.

Learning Assessment (5 min)

1. What is a Habitat? *A Habitat is a specific area where an animal lives where it makes it home, kind-of like a neighborhood or community.*
2. What are the parts of Habitat? *Food, Water, Safe place to raise young, Shelter, and Space.*
3. Give examples of Signs of Animals using the Forest Habitat--- how we know animals are around when we don’t see them: *nests, sounds, holes in leaves and bark, tracks, chewed twigs, rubs or claw marks on tree, etc.*

Final Thought//Wrap Up

Remember, all plants and animals “Have to have Habitat!” Forests provide habitat for many plants and animals---both on Belle Isle and in Michigan. Which do you think has more habitat---- a paved parking lot or a forest? A lawn or a forest? **We need forests in order to provide habitat for many diverse plants and animals!**

Tell students they’ve done a great job!