

Exploring Plants and their Homes

Lesson Sequence and Description

The pre-visit activity (*Activity 1: Comparing Animals and Plants' Needs*), students will develop collages to represent (i.e., model) how animals and plants meet their needs in a forest habitat (or other habitats that you may have studied—ocean, pond, prairie, arctic). During the Garden visit, students will explore how plant parts help the plant to take in water, air, and produce food for the plant to grow in the different habitats present at the Garden. Students will begin by comparing differences in basic plant parts of various plants. Then they will move on to explore 2-3 different habitats in the Garden including the Forest. At each habitat, students will observe and discover how characteristics differ in each habitat and record information about animals that live in there, summer temperature and amount of sunlight, water and soil, and plant communities.

The post-visit lesson (*Activity 2: Habitat Comparison*), will review and summarize the observations that students made during their visit to the Garden. This opportunity for students to compare observations with classmates is an important part of learning how to talk about science phenomenon, and to consolidate their learning.

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Pre-Visit Activity

Activity 1: Comparing Animals and Plants' Needs

Materials Needed

Chart paper or white board.
Magazines with nature pictures for cutting out images.
Paste for making collages.
Paper on which to glue the pictures.

Overview

In this lesson, students will develop collages to represent (i.e., model) how animals and plants meet their needs in a forest habitat (or other habitats that you may have studied—ocean, pond, prairie, arctic). Animals depend on their surroundings and other living things to meet their needs in the places they live. Animals need food, water, air, shelter, and favorable temperature; plants need sufficient light, water, minerals, favorable temperature, and animals or other mechanisms to disperse seeds.

Procedure

1. Review with the students the needs that animals have by asking them to name their own needs for survival. List these on one chart paper or the white board (food, water, air, shelter, and favorable temperature). They will likely say other things like love, money, toys, etc. which you can include on the chart if you would like. If you do, then ask the students to review their list of needs and think about whether or not a wild animal (squirrel, rabbit, bird, spider) would have these same needs. Circle the ones that all animals need—listed in parentheses above.
2. Ask students to now think about what plants need to survive (sufficient light, water, minerals, favorable temperature, and animals or other mechanisms to disperse seeds). This discussion may take a little more prompting by you. You can show them the “How plants meet their Needs” hand out that is included at the end of this lesson to help them come up with plant needs
3. Have the children construct a forest habitat collage using magazine photos to show examples of food, water, air, shelter, sunlight that could meet the needs of common plants and animals in the Northeast Deciduous Forest such as squirrels, deer, turkeys, pine trees, oak trees.
4. Ask students to label the parts of their collages that represent food, water, air, shelter, sunlight for meeting plant and animal needs.

Grades: 1 &2

Guiding Questions

How do animals and plants meet their needs”?

Timing 30 minutes

MA STE Standards addressed in lesson

1-LS1-1: Use evidence to explain that (b) plants have roots, stems, leaves, flowers, and fruits that are used to take in water, air, and other nutrients, and produce food for the plant.

2-LS2-3(MA): Develop and use models to compare how plants and animals depend on their surroundings and other living things to meet their needs in the places they live.

How Plants Meet Their Needs

