Seed Need

Objectives

Children will explain how seeds are carried by animals, and evaluate the importance of wildlife as contributors to ecological systems using this example of seed dispersal.

Method

Students gather seeds by going outside and wearing socks over their shoes.

Materials

One large sock or a piece of masking tape per child; paper or plastic bag.

Background

Wildlife contributes to the diversity and balance of ecological systems in ways that are not very obvious. One of these ways is in the process of seed dispersal. Animals carry many seeds—whether in the coats of fur-bearing animals or in seeds carried and dropped by some birds. Animals distribute seeds in other ways too. For example, pack rats and squirrels gather seeds and store them.

Some of those seeds are not eaten, and the seed cache becomes a plant nursery. Many seeds are eaten but not fully digested. In those cases, animal droppings distribute and often fertilize seeds.

The major purpose of this activity is for children to understand one example of how wildlife contributes to ecological systems.

Procedure

1. Ask each child to put a sock over one shoe and to go on a walk through a grassy area or field—particularly one that is abundant in seed-bearing plants. (A piece of masking tape over the foot or around the ankle can also be used for this activity.) Create an "environmental map." What ecosystem differences exist in the different neighborhoods or communities?

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The burdock plant creates the infamous "hitchhikers" once the flowers turn to seed.

2. After they walk through the area, have children take off their socks and examine them carefully. What has happened? Discuss briefly the seeds and other things that are attached to the socks. Place the socks in a paper or plastic bag. Walk in different locations. Contrast seeds found in each location.

3. Have the children remove the seeds and other particles from the socks. Talk with the children about the major kinds of things they seem to have – seeds, grass, small bits of twigs. Next, discuss the seeds in more detail, talking about the different kinds of seeds they have found: round, skinny, big, small, and so on. Make a data chart showing the types of seeds they found.

4. Have children record – with words and small drawings – the kinds of things on their socks. Also tally the number of each kind of thing on the socks.

5. Ask the children how different animals' fur might be similar to their socks. Has anyone ever brushed seeds or stickers out of a dog's or cat's fur? Discuss with the children how seeds are carried by animals, which is similar to the way they carried seeds and things on their socks. Seeds may stick to an animal's fur in one location and fall off in another. Why is this process important? What happens to the seeds that fall off?

Optional Activity

Each child can plant his or her seeds in a shoe box filled with planting medium (soil or a commercial mix). Be sure the children put their names on their boxes. Water sparingly and care for the shoe box gardens regularly.

NOTE: Many wild plant seeds require freezing before they will germinate. Put the seeds in the freezer for several days, and then plant them. Even after freezing, some seeds may not sprout. Some seeds require scarring, scorching by fire, or digesting before they will grow. Also, some seeds are not viable and will not germinate or sprout.

This activity is adapted with permission from Project WILD ©2001 (Council for Environmental Education). Teachers and youth group leaders may obtain a Project WILD guide by attending a workshop. For more information about this program, call 304-558-2771.