

Traveling, Seed Style!

GENERAL INFORMATION

THEME

Seeds have many survival strategies to help them adapt to life in different ecosystems.

SUB THEMES

1. Seeds are an important part of a plant that help the plant reproduce.
2. Not all seeds are created equal.
3. Seeds like to travel and have many ways of moving around.

VOCABULARY

Embryo, flower, cone, fruit, germinate, spores, parent plant, dispersal, ecosystem

ACTIVITY MATERIALS

Seed samples, fern sample, cups for collected seeds, material strips for seed collection

METHODS

INTRODUCTION

Introduce yourself and state the title of the activity. Preview the main points of the activity and give the students an idea of what they will be doing. Conversationally state the theme and sub themes. Ask: **Can someone tell me what a seed is and from where it comes?** Explain that a seed is a young plant called the ‘embryo’ surrounded by food and covered in a protective shell. It comes from the female part of a plant, such as a flower or cone. Show one seed example and pass it around so that the students can feel it. Ask: **What does this seed feel like and from what do you think it came?** Explain that not all seeds look and feel the same. Show the other seed examples and ask: **How and why do these seeds look so different?** Explain that they look different because they come from different types of ecosystems and use different adaptations for dispersal. Dispersal is how a seed gets from the parent plant to a new location so that it can grow without having to compete with the parent for food, sun, and water. Ask: **From where do the seeds come and how are they dispersed based on how they look and feel** (forest bottom, high in tree, open field)? **What role do some animals have in helping seeds disperse** (sticking to animal fur and “fertilizer packets”)? Mention briefly that not all plants come from seeds. Some come from spores, which are single reproductive cells that can be dispersed by wind, water, and animals. Show a fern as an example.

Teacher’s Corner

Grade Level(s)

4th and 5th

State Performance Indicators

SPI 0407

-4.1: Draw conclusions about the relationship between reproduction and the survival of a species.

-5.1: Determine how a physical or behavioral adaptation can enhance the chances of survival.

SPI 0507

-5.1: Identify physical and behavioral adaptations that enable animals such as amphibians, reptiles, birds, fish, and mammals to survive in a particular environment.

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ACTIVITY

Divide the group in half and have one team explore the long grass habitat and the other explore a wooded habitat. The students will search and collect different seeds that they might find, being careful to only collect one of each kind. Ask the students to try and find seeds that have already dropped from the parent plant and to refrain from picking any that are still attached. Discuss keeping the seeds intact so that other groups can use them later. If they find unique seeds that are attached, have them draw a picture of it and its plant host. After ten minutes of searching, let the groups switch to the second habitat type to do the same. They may use different tools for collecting, such as a strip of material or socks to find clinging seeds.

Gather as a group again and form a seated circle. Ask: **What are some of the different ways that people travel** (plane, automobile, walking, biking, train, etc.)? Explain that seeds also have different ways to travel just like people. Have the students place all their collected seeds in the middle and have them group the seeds based on how they disperse. Examples may be: floats on air, flies through air, floats on water, falls and bounces, eaten by animals, thrown by plant, sticks to animal fur, etc. Have all the students place their seeds in the middle of the circle and discuss each kind describing the strategy that it uses for dispersal and why that strategy may be beneficial.

DISCUSSION

Review the following points: What are the different types of seed dispersal methods? Why is seed dispersal important for plants? How do animals help seeds disperse? How does the shape and size of a seed affect its dispersal? Which seeds probably travel farthest? How might seed dispersal be valuable for wildlife and humans? What would happen if this ecosystem no longer had birds or mammals?

WRAP-UP

Let the group know that the activity is coming to an end. Conversationally review the theme and sub themes. Give the teachers any of the materials that students are able to take home with them.

BRINGING IT TO THE CLASSROOM

Collect several pictures with animals using camouflage. Keeping the pictures out of view, ask the students to name some special traits that animals have to help them survive? Show the pictures and get them to guess where the animal is located. Engage students by asking how animals can use plants for camouflage. Have the students make an animal out of construction paper that may use camouflage and have them hide it for the group to try and find.

ACKNOWLEDGEMENTS

- Copyright © 2008 Healing Stones Foundation. All rights reserved.
- Activity developed by Allison Mains and Melissa Squirlock; January 2007.
- Adapted from Activity 43, Project Learning Tree: Environmental Education Pre K-8 Activity Guide, 2001, American Forest Foundation