

Activity: Seed Search

Grade Level: Grade 1

Major Emphasis: Seed Dispersal

Major Curriculum Area: Science

Related Curriculum Areas:

Refer to Outdoor Education Curriculum Matrix K-2
Mathematics
Language Arts
Art



Program Indicator:

The student will describe various means of seed dispersal and survival.

Student Outcomes: The student will:

1. identify three ways seeds are dispersed.
2. classify seeds in terms of the means by which they are dispersed.

Readiness:

1. Complete the first grade Unified Science Unit, A Seeds and Seedlings. @
2. Introduce vocabulary:

seed
float



attach
carrier

pod
fruit



hitchhiker
excrete



Figure 1: Types of Seeds

Materials:

glass seed bar of seed samples
clipboards with pencils & observation sheets
laminated seed dispersal cards
demonstration materials: Styrofoam packing, cork,
Velcro, feathers, bubbles, artificial fruits or berries
bags of assorted seeds:
water-acorns, hickory, black walnuts, gum balls,
variety of weed and wildflower seeds
wind-cattail, dandelion, milkweed, maple,
variety of weed and wildflower seeds
animals-marigold, beggars lice, holly berries,

In case of inclement weather:
hand lens
flannel fabric scraps
shallow pans of water
seeds collected at school
construction paper
glue
fan

Procedures:

Activity A: Seed Dispersal (DL2,3&4)

1. Working with a group of 6 to 8 students, display the glass seed bars as examples of seeds that scatter in different ways. Allow a brief period for hands-on exploration of the seed collection. Refer to Figure 2.
2. Show the activity cards and demonstrate materials depicting seed characteristics and the following:
 - A. wind (air): demonstrate using feathers and bubbles
 - B. water: demonstrate using Styrofoam or cork
 - C. animals: demonstrate using Velcro (attachment-sticky “hitchhiker”); demonstrate using artificial fruit or berries (consumption-eaten and excreted by animals)

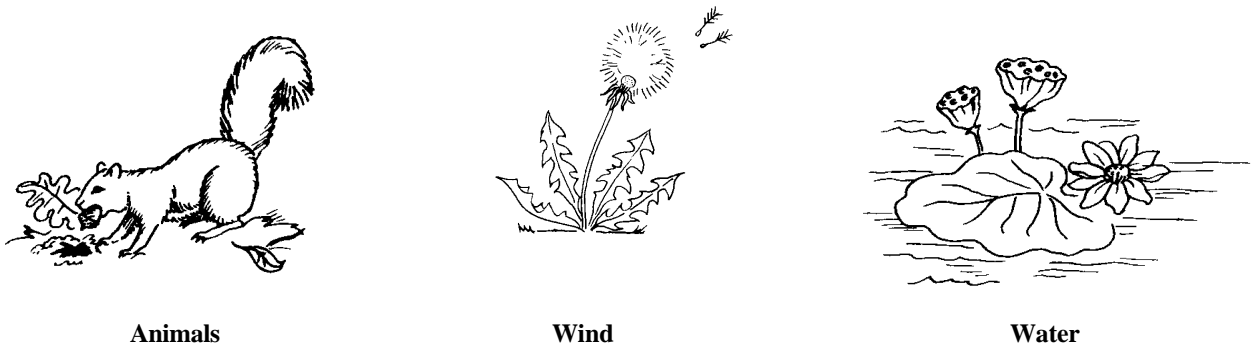


Figure 2: Methods of Seed Dispersal

3. Go on a Aseed search hike@ in order to look for examples of seeds in the natural setting. Have each student take a copy of the observation sheet on a clipboard with a pencil. Locate as many seeds as possible and record what has been discovered on the Seed Search Observation Chart, Supplement A, by circling the picture of the water, wind or animal method of dispersal under the appropriate picture. Do not expect all 12 seed examples to be found.
4. If time permits, have the students cut and sort the worksheet into three categories. Have them label their groups.

Activity B: Inclement Weather Plan

1. In case of inclement weather, distribute seed collections.
2. Allow students to examine seeds using hand lens, fan, water and fabric to determine characteristics and group them by method of dispersal.
3. Student may test seed in any way *except tasting*.

Summary: (DL1,2,3,4&5)

1. Have the students divide into pairs. Each pair will select one seed. Complete the visual organizer “Adding Up the Facts” with the seed dispersal method being the main idea. Example:

Adding Up the Facts

1. light
2. soft
3. parachute shape
4. has wings

Seed Dispersal Method: wind

2. Have students use the facts to write a riddle. The answer will be the method of dispersal. Example:

I am soft.

I have a parachute shape.

I have wings.

How do I travel?

Follow-Up: (DL1,2,3,4&5)

1. Use three egg cartons labeled: Water, Air and Animals. Classify seeds by placing them in the appropriate cartons. Require verbal justification for placement. *Many different solutions are possible.*
2. Take a sock walk. Cover one shoe with an old sock. Take a hike. When you return, remove the sock, dampen it and place it in a plastic bag.
3. Collect soil from various locations. Remove visible plants, twigs, etc. Water the soil and place it in a sunny spot. Observe and draw conclusions.
4. Collect seeds. Make individual collections.

Extension Activities: (DL1,2,3,4&5)

1. Read The Tiny Seed by Eric Carle. Discuss the story to determine the means by which this seed was dispersed.
2. Using art materials, invent a seed to represent each seed dispersal category. Materials can include peas, beans, paper, tape, glue, rubber bands, toothpicks, feathers and Styrofoam.

Teacher Resources:

Books:

- < *Seeds by Wind and Water, Jamison and Jordon, JE Publishing.
- < *Wonder of Seeds, Stefferud, J582.0467.

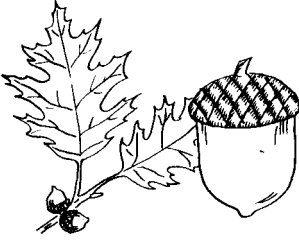
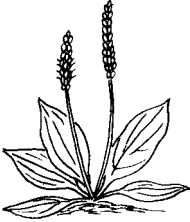
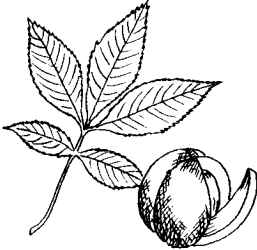



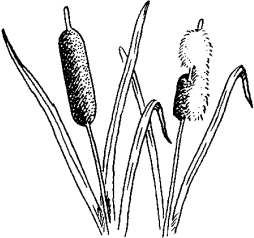





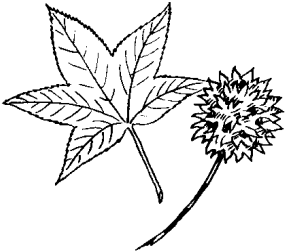





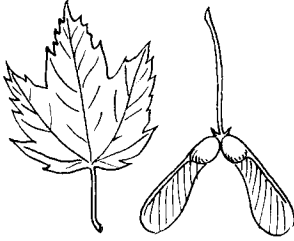
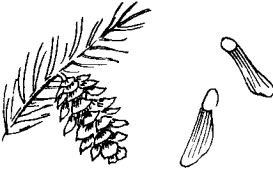
Slides:

- < * ASeed Dispersal - How Seeds Travel,@ 582.

Recordings:

- < * ABilly B. Sings About Trees@

Seed Search Observation Chart

<p>Oak</p> 	<p>Plantain</p> 	<p>Hickory</p> 
		
<p>Cattail</p> 	<p>Pokeweed</p> 	<p>Holly</p> 
		
<p>Sweet Gum</p> 	<p>Phragmites, Reed Grass</p> 	<p>Grass</p> 
		
<p>Maple</p> 	<p>Pine</p> 	<p>Dandelion</p> 