

Seed Dispersal Strategies

Grade(s): 2-5	Topic: Seeds, Plant Life Cycle, Plant-Animal Interactions	Season: Fall
Timing: 45 minutes, including 5 minute RPK, 5 minute intro, 15 minute seed dispersal exploration activity, 15 minute outdoor game, and 5 minute conclusion		
<p>Objectives:</p> <ul style="list-style-type: none"> • Students can explain that the purpose of fruits and deadheads is to protect seeds and help them travel. • Students begin to understand that seeds need to travel in order to have enough space and resources to complete their life cycle • Students will experiment with the mechanisms seeds use to travel by wind, water and animals, and will be able to classify common seeds they find into their dispersal category. • Students can list the resources seeds need in order to grow: sun, space, water, and soil. 		
<p>Materials:</p> <ul style="list-style-type: none"> • Seed kit with examples of seeds for each kind of seed dispersal strategy (see Background Information for examples) • Large empty containers (yogurt quarts work well), labeled with “Wind” “Water” and “Animal” with pictures if possible. Make sure you have two of each type (You can also do a “mechanical” bucket if you desire.) • Small laminated illustrations of different kinds of seeds for seed relay race (you can also use the actual seeds if you can gather enough, and can use seeds students gathered in previous seed lessons if applicable) • Magnifying glasses or boxes for observing seeds close up • Stopwatch (optional) • Mechanical seed dispersal video – jewelweed, lemon clover, impatiens (optional) • <i>Seed Dispersal Strategies</i> worksheets 		
<p>Prep Needed:</p> <ul style="list-style-type: none"> • Making seed kit with seeds to demonstrate for different kinds of dispersal. • Making seed cards students will sort in the game, or getting enough seeds that kids can use actual seeds for relay game. 		
<p>Degree of need for extra teacher or parent helper? Low</p>		
<p>Journal Prompt: Why is it important for seeds to travel away from the plant they came from in order for them to grow?</p>		
<p>Lesson Sequence:</p> <p>Reactivate Prior Knowledge (5 minutes) Pass around a fruit or deadhead containing seeds. Why do orchard trees and other plants make seeds? How do the students think these particular seeds get out of the fruit or deadhead and get planted? What might happen to them along the way?</p> <p>Introduction to Seed Dispersal (5 minutes) Draw the plant life cycle and focus on the section between fruit/deadheads and seeds. Reiterate that the purpose of flower to attract pollinators who help it reproduce and make seeds (the success of a living organism is dependent on its ability to reproduce). A seed is</p>		

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important because it contains the beginnings of a new plant. You find seeds when you look inside a dried up flower deadhead, a seedpod, or when you look inside a fruit.

Ask students to think about *why* seeds need to travel in order to grow. They need their own sunlight, water, soil, and space in order to grow become a mature plant that makes its own seeds. Seeds face many obstacles, and traveling to (and safely ending up in) a place where they can grow is a big one!

Exploring Seed Dispersal (15 minutes)

Give each student a seed from the kit and have him or her think about how the seed travels. Allow them to experiment with the seeds a bit (if it is a parachute, let them toss it into the air; if it's a hitchhiker let them try and stick it to themselves). After they experiment for a few minutes, tell them there are four main ways that seeds can travel: Wind, Water, Animals, and Mechanically (by the plant itself exploding the seeds outwards!). Show a video clip of a mechanically dispersing seed if able

Pass out the *Seed Dispersal Strategies* worksheet and have students work to put each of the seeds in their kit into the right category. Encourage scientific, accurate illustrations. Take one or two minutes to review once everyone has finished to make sure that the categories are clear and students are prepared for the relay race.

Seed Relay Race (15 minutes)

Split the class get into two teams, facing the three yogurt containers labeled wind, water, and animal. Give each student a picture of a seed. Tell them that they are seeds in a relay race. The first student from each line will speed walk to the buckets and drop his card into the bucket that describes how his seed travels. Encourage them to move like the wind, water, or animal that is helping them travel. At the end, review the cards and ask, "Is this a right answer?"

Conclusion (5 minutes) - Wrap up and review what a seed needs to survive, why they need to travel, and the different ways they are dispersed.

Vocabulary

Dispersal
Exploders
Floaters
Fruit
Helicopters
Hide-n-seeks
In-and-Outs
Parachutes
Pod
Shaker

Vocabulario

Adentro y Afuera
Dispersión
Detonadores
Escondidas

Flotadores
Fruta
Helicóptero
Sonajas
Vaina

Extensions / Homework Ideas:

- Tell a five-senses story from the perspective of a seed, including what it was like to be in a fruit or deadhead and how it traveled to its place in the garden / orchard.
- Divide the students into pairs and have them search the schoolyard for examples of the seed dispersal methods shown on the Seed Relay Race cards. At the end of the activity, gather the children and ask if they had any difficulty finding a type of seed? Why might that be? (Chances are they cannot find water dispersed seeds because there is not an open water source in their schoolyard.)

Sample Trivia Questions:

- What part of a tree helps spread the seeds? (FRUIT)
- What part of a tree makes food for the tree? (LEAVES)
- (T or F) Hitchhiker seeds use animals to get around. (TRUE)
- (T or F) Squirrels bury seeds to eat later and some of the seeds grow into trees. (TRUE)
- Why do seeds need to travel away from the plant they came from? (TO GET ENOUGH SOIL, WATER, SUNLIGHT, SPACE)
- Name a way seeds travel. (If kids says one of these HITCHHIKER, IN & OUT, HIDE & SEEK, PARACHUTE, HELICOPTER, SHAKER, FLOATER, get kid to say one of these: WIND, WATER OR ANIMALS)
- (T or F) Nuts are one kind of seed. (T)
- (T or F) Parachute seeds use animals to get around. (F)
- (T or F) When squirrels bury seeds, they remember where they buried each one. (F)
- Use old Owls and Crows questions for more questions.
- Hold up examples of seeds & quiz dispersal methods.