

Seeds on the Move – Seed Dispersal for Kids

September 26, 2013 by [Christy Peterson](#)



In the northern hemisphere, September is the time for launching offspring in the world. Plants do this in the form of seeds—a whole new generation of green wrapped up in unassuming packages. Unfortunately, plants have one distinct disadvantage compared to humans and other animals. They can't move from their appointed spot on the planet. So, how to launch Jr. into the world with no feet, fins, or scales, let alone wheels? With pretty ingenious solutions, as it turns out.

Gravity

Plants have five primary mechanisms for moving their seeds. Some plants simply let their seeds fall to the ground. For annuals (plants that live only one season), this method works fine. The parent won't be around to compete with the offspring. However, for plants that do survive more than one season (perennials/shrubs/trees), having Jr. growing at your feet and competing with you for resources is not a good plan. How to solve this problem? Come up with a better way to launch your seeds.

Animals

One way to send seeds far from the parent is to have them hitch a ride. Plants using this method often have seeds covered with barbs or sticky mucous, perfect for attaching to unsuspecting passers-by. Some seeds, particularly those surrounded by tasty fruit, hitch a ride in the digestive systems of animals. Hard coatings allow them to pass through and emerge at the other end relatively unscathed.

Animals are also participants in a two-part arrangement that some plants have developed. For example, most nut trees simply allow their seeds to drop to the ground. The seeds are then carted away by squirrels, jays, and other animals. Some are eaten; others are forgotten. The misplaced seeds are able to grow into mature plants away from the parent.

Air

Anyone who has made a wish on a dandelion flower has seen wind dispersal in action. The variety of designs plants have developed to harness the wind is staggering. There are maple keys that spin and fly, cottonwood seeds that float gently, and dandelion seeds that fly along like tiny parachutes. If the wind is right, seeds from these plants can travel hundreds of miles. It's a big gamble though. Most seeds don't fall in suitable growing locations. This is why plants that use wind dispersal produce so many seeds.

Other plants depend on the wind in different ways. Poppy seeds, for example, can hardly be called aerodynamic, but these plants still depend on the wind. "Salt-and-pepper-shaker" style pods keep the seeds from falling directly below the parent plant. When the wind kicks up, the plant's long, slender stalks gracefully bow in the wind, tipping the shakers and depositing the seeds.

Water

Plants in riparian/beach areas often employ water to move their offspring. These plants produce seeds that float. Water carries them away—hopefully to a suitable growing location. This dispersal method explains how remote islands have vegetation similar to land masses hundreds of miles away.

Mechanical

Probably the most entertaining of seed dispersal methods is mechanical. Some plants have developed the ability to “launch” their seeds away from the parent plant. These plants build up tension in their tissue, much like a catapult stores energy in a taut rope. At just the right moment, the tension is released and the seeds are flung. What a way to send off the kids!

Activity: Move Those Seeds

All this discussion about seed dispersal can get a little dry. One way to make it fun is to have kids pretend they are plants—it’s up to them what kind—and give them the task of coming up with ways to disperse seeds. Provide them with glue, tape, string, and any other fasteners you can think up, plus a variety of materials. I find that recycled items, like TP tubes, plastic containers, egg cartons and fabric scraps, work well for these kind of crafts. I like yarn, pipe cleaners, and dowels too. This is a great “clean out the junk drawer” project!

Books & Websites

- Nature: The Seedy Side of Plants: <http://www.pbs.org/wnet/nature/episodes/the-seedy-side-of-plants/introduction/1268/> (amazing video of mechanical seed dispersal and other resources)
- Pre-K Lesson Plan: How Do Seeds Move: <http://outsidemom.com/2011/10/traveling-seeds/> (lesson plan and activity from outsidemom.com)
- *A Seed is Sleepy*, by Diana Hutts Aston
- *A Fruit is a Suitcase for Seeds*, by Jean Richards
- *Plant Secrets*, by Emily Goodman
- *The Tiny Seed*, by Eric Carle
- *The Carrot Seed*, by Ruth Krauss

The materials and features listed below are only suggestions, and students are encouraged to be as creative as possible when designing their seeds!

Dispersal method: Gravity Suggested materials: Cardboard, heavy items Key features: This dispersal method usually occurs with fruits, so students will effectively be making their “seeds” into fruits. They should be heavy to simulate a ripened fruit ready to drop from a tree, and they might be brightly coloured for attracting animals which usually completes the dispersal process in seed-bearing fruits.

Dispersal method: Wind Suggested materials: Tissue paper, string, lightweight items Key features: Accessory structures to help the seed carry in the wind (eg. parachute, wings). Students may also remove parts of the Styrofoam ball to make the seed lighter.

Dispersal method: Water Suggested materials: Wax paper, additional items that would help a seed float Key features: Seeds should have a waterproof coating, and students should attempt to make them buoyant. They can remove parts of the Styrofoam to make the seed lighter, or they can add air-filled accessory structures (like wax paper sacks – akin to water wings for seeds) to help the seeds float.

Dispersal method: Animal Suggested materials: String, pipe cleaners, Velcro, additional items that would look appetizing for dispersers or sticky for fur/feathers Key features: Seeds that are dispersed after ingestion should look appetizing to the animals that might eat them – they can be brightly coloured or big and juicy! Seeds that are spread by animal contact should use Velcro or pipe cleaners to stick to fur or feathers.

