

NATURE DETECTIVES

Fall 2011



Milkweed
and Pod
with Seeds



Way to Go, Seeds!

Plants are stuck in one place. A growing plant is held to the ground by its roots and cannot leap, fly, roll away or even hitch a ride.

But, those stuck-in-the-dirt plants make **seeds** that do travel, in an amazing variety of ways. Seeds from different kinds of plants have their own special way of getting about. Some are shaped for jumping, some for rolling or floating, some for flying and some for hitchhiking.

Why Do Seeds Travel?

Seeds travel so they can find room to grow. If every seed sprouted beside its parent plant, crowding would keep most seeds from becoming strong thriving plants. Each seed needs its own space in order to get enough water and sunlight and soil necessary for growth.

End of a Seed's Journey

A seed will sprout when conditions are just right for that particular kind of seed. If the seed lands where there is enough sunlight, moisture and warm earth, perhaps it will start to grow the next day, or maybe not until the next spring or even not for several years. Moth mullein seeds can wait up to 90 years for perfect growing conditions! When a seed ends up in the right spot, it is like a little surprise package. At some point, a baby plant will emerge, unfolding like a tiny gift of nature.

Talk About Travel

People move by walking, jumping, and so forth. Inspired by the many ways seeds travel, inventors designed machines to move humans farther and faster. Challenge yourself or a friend to list all the ways people can travel. Did you think of unicycle or pogo stick? How about somersaulting?



Moth Mullein and Seeds

Seeds Go Far and Wide, All Over the Countryside

Seeds that are good travelers may spread new plants over long distances. You can probably guess one plant that has become widespread around the world.

Here are your clues: The plant has bright yellow flowers. It often grows in lawns, but is tough enough to sprout in sidewalk cracks or rocky paths and in many other places. You might have picked its puffball seed head. If you blew on the delicate, wispy ball at the end of the stem -- poof, seeds floated off in all directions. What plant is it?



Some Seeds Fly in the Wind



Maple Seed

Dandelions don't have to depend solely on children to scatter their seeds. If you look closely, you will see each seed has a feathery top that will float like a parachute on the wind. A gentle breeze can lift the seeds across mountains.

Milkweed plants also have seeds with parachute tops to soar in the wind. Have you seen other kinds of plants with similar seeds?

Maple trees have seeds that are tucked into helicopter-type wings.

When a seed falls off the tree, it whirls around in the breeze to land away from the tree that released it.

Some Seeds Pop

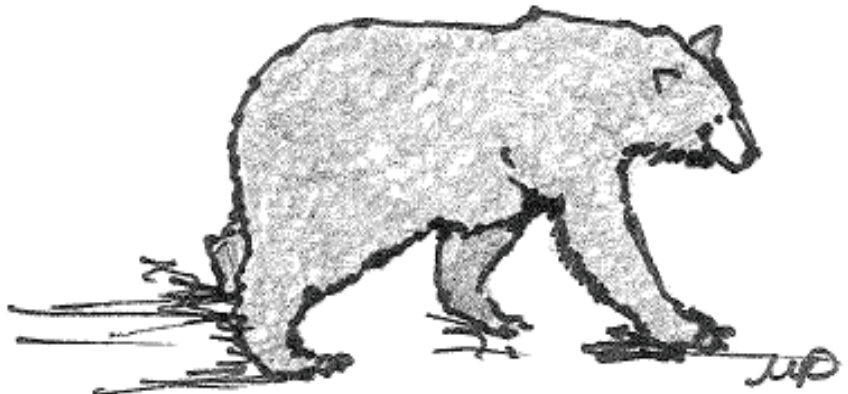
Some seeds grow in pods that act like springs as they dry out in the sun. When the seeds are ripe and ready to travel, the pod cracks open with a pop and the seeds shoot off. It is almost like the seeds are jumping away from the parent plant.

California poppies have pods like this, and if you touch a seed pod that is ready to go, you can hear it pop and watch the teeny seeds leap out.

Some Seeds Simply Drop

Apple trees have seeds that simply drop out of the tree. Of course, those seeds are inside a round-shaped apple that will often roll a little distance.

Can you think of other seeds that drop?



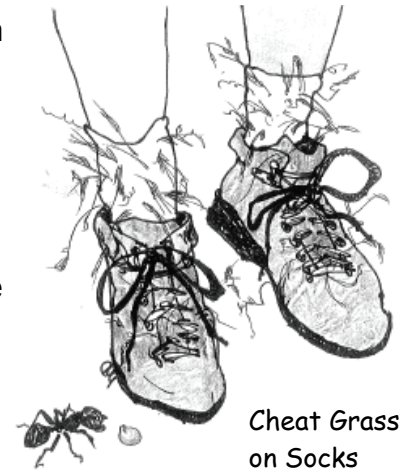
Some Seeds Trick Animals

Sometimes apple seeds are carried far away from the apple tree. Can you guess how?

Apples are one example of seeds that trick animals into carrying them. These seeds are hidden in fruit that tastes good, or is colorful or dangles in plain sight on a tree or bush. Some seeds actually have to go through an animal's digestive system to be ready to sprout. When the animal poops, the seed comes out. The animal waste pushed out with the seed is like a packet of fertilizer to help the seed grow quickly into a hearty plant.

You could say fruit is the payment to an animal for carrying seeds. Some plants trick animals into carrying seeds without giving them a reward. Those seeds stick to fur and feathers. They also stick to socks and shoes and vehicle tires. Cheat grass is an annoying plant with bristly clingy seeds that are hard to get off your socks.

Seeds of yellow violets are adapted to being carried by ants. The seeds have a little knob that makes it easy for the ant to hold on. Clark's nutcrackers are birds that hide thousands of pine tree seeds every fall for eating later. Many other birds and rodents do the same. A few of those seeds not found and eaten will sprout into new trees.



Cheat Grass on Socks

Some Seeds Float Like a Boat

Seeds that are round roll to new places, but round seeds are often good at water travel too. Willows have seeds that can float away to establish new wetland bushes.

Seeds are Good Food

People the world over eat seeds. Often, it is hard to remember that our most common foods are actually seeds. Wheat, oats, rice, corn, peas, beans - even coffee beans - are seeds. Can you think of other seed foods?

Silly riddle: What beans are not seeds and will never grow into plants?
(See page 4 for the answer.)

Seeds are hidden in blueberries, peaches and tomatoes. Where are a strawberry's seeds?

Warning: some seeds are poisonous. Never eat a seed without checking with an adult.

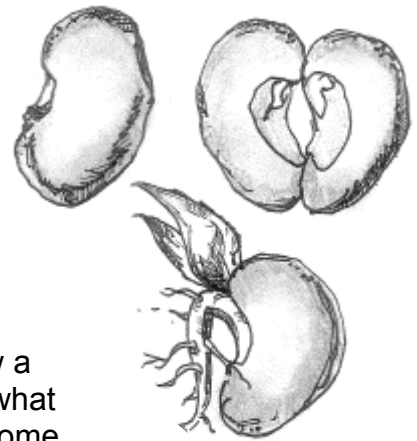


Ants with Violet Seeds



Lima Bean Discovery

Soak a few dry, uncooked lima beans in water overnight. The next day, slip off the outer seed coat and split the bean in half. Can you find the baby plant? The two halves of the seed nourish the tiny plant as it sprouts.



Outdoor Seed Hunt

Look for as many different kinds of seeds as you can find. Draw a picture of them on a piece of paper or in a journal. Write down what way or ways you think the seeds will travel. Keep in mind that some seeds travel in more than one way.

Nature Detectives Club

Fall can be an exciting time to explore Boulder County Open Spaces. There will be plenty of seeds to see.

Have you tried the Nature Detectives Club activities?



Look for Club information at:



Walden Ponds Wildlife
Habitat
The Agricultural Heritage
Center
Meyers Homestead at
Walker Ranch
Carolyn Holmberg
Preserve at Rock
Creek Farm
Caribou Ranch
Betasso Preserve
Mud Lake
Heil Valley Ranch – Lichen Loop



Riddle answer : jelly beans