

All About Seeds

What Are Seeds?

Have you ever found seeds inside an orange or apple you were eating? Many plants reproduce, or make more plants like themselves, by forming seeds. The seed is the first stage in the growth of many plants.

Seeds may be large or small. They may be round, oval, flat or pointed. Seeds may be many colors too, they can even be striped! A seed looks very different from the plant that grows from it. But all seeds become plants that look like the plants they came from.

Look at the pictures below, they are all seeds!



When you eat lima beans, you are eating seeds.



Sunflower seeds

The seeds from a pine cone.



Corn Kernels are seeds from the corn plant.



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Plants Make Seeds

Plants that reproduce by seeds usually form more than one seed at a time. These seeds carry the information needed to grow into plants that look very much like the adult plant they come from.

Two groups of plants form seeds. In one group are the plants that have flowers. You may have seen flowers growing on bushes, on trees, or on small plants. These flowers create seeds after pollination. Seeds can also be found inside fruit produced by a plant.



The seeds in a watermelon are protected by its fruit.



A cone from a pine tree.

In the other group of seed forming plants are plants that have cones. Some evergreen trees, such as pine trees, have cones. The cones have hard scales that protect the seeds under them.

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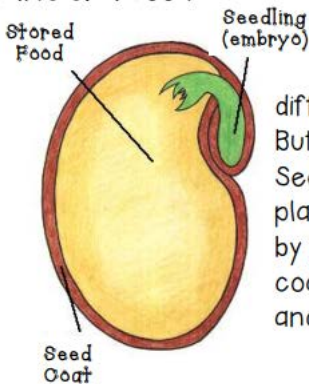
Plants Make Seeds

Some plants can be grown from other plant parts. For example, if you place a leaf or a piece of stem in water, it may form roots. Once roots form, you can put the plant part in soil, and it will grow into a new plant. The leaf or a piece of stem used to grow the new plant is called a cutting. Underground plant parts such as tubers and bulbs can also be used to grow new plants.



A bulb is a part of the stem. Many flowers, such as tulips, grow from bulbs.

Parts of a Seed



Seeds may be many different sizes, shapes and colors. But all seeds have the same parts. Seeds are like packages with tiny plants inside. The seed is wrapped by the seed coat. Inside the seed coat is a seedling, or baby plant, and stored food for the seedling.

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Seed Dispersal

When the seed leaves a plant, it's called dissemination. This is one of the most important steps in the seed's life. People plant some seeds, but most plants don't rely on people. Plants rely on animals, wind, and water to help scatter their seeds.

The kind of seeds which are often spread by wind are smaller seeds that have wings or other hair-like or feather-like structures. Plants that produce wind blown seeds, like the dandelion shown in the picture below, often produce lots of seeds to ensure that some of the seeds are blown to areas where the seeds can germinate. Some plants have sacks that explode!



Dandelion seeds are being dispersed by the wind.

The fluffy parts of the milkweed seeds help them float away.



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Seed Dispersal

Many aquatic plants and plants that live near water have seeds that can float, and are carried by water. The size of the seed is not a factor in determining whether or not a seed can float. Some very large seeds, like coconuts, can float. Some small seeds also float.



A Coconut
traveling in water.

A cocklebur has hooks that grab onto fur or clothing. An animal or person may give this seed a ride to a faraway place.

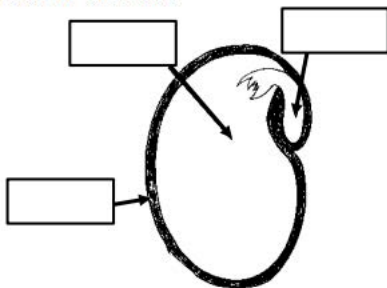


Animals disperse seeds in several ways. First, some plants, like burrs, have barbs or other structures that get tangled in animal fur or feathers, and are then carried to new sites.

Other plants produce their seeds inside fruits. These fruits may be eaten by animals. The fruit is digested by the animal, but the seeds pass through the digestive system, and are dropped in other locations. Some animals bury seeds, like squirrels with acorns, to save for later, but may not return to get the seed. It can grow into a new plant.

Seeds Quick Check

1. True or False Seeds become plants that look like the plant they come from.
2. True or False Plants that reproduce by seeds usually form one seed at a time.
3. True or False Seeds are found inside fruit.
4. True or False Pine cones protect the seeds of a pine tree.
5. True or False Plants cannot be grown from plant parts, such as a stem or leaf.
6. Label the inside of the seed.



7. What are the three primary ways that seeds are dispersed?
Describe each way.
