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about what you are
reading in this space.

Science Shorts -7

What Is A Seed?

Many plants begin their life cycles as a seed. A huge oak tree starts life as a tiny acorn. Peanuts, peach pits and grains of wheat are all seeds. This means that peanut plants, peach trees and wheat all grow from seeds.

When bees, butterflies or birds visit flowers for the nectar, they pick up some of the pollen from the flower on their tiny hairs or feathers. When they visit the next flower, the pollen brushes off of the feathers or hairs and is transferred to the new flower's pistil. This is called **pollination**.

A seed first begins to form when pollen joins with an egg in the flower's pistil. The seed has a tiny plant inside it. It also has the food that the tiny plant will use when it starts to grow. Some seeds, like beans, have two sections of food inside the seed while other seeds, like corn, have only one section of food.

To keep the seed safe, the pistil grows thick around the seed and turns into a fruit or a bean. Sometimes the fruit is one that people can eat, like a peach or a cucumber. But, the winged seed of a maple tree is also a kind of fruit. All fruits keep seeds safe from harm. A seed can stay inside its fruit for a long time.

After a seed leaves its fruit, everything needs to be just right before the tiny plant can begin to grow. If it is too cold or too dry, the plant won't be able to start growing. When the seed finally becomes wet enough and warm enough, a tiny plant will begin to grow. This is called **germination**.

The best place for most seeds to grow is the warm, wet soil. First the seed splits open and the main root grows down into the ground. How does the root know which way to grow? It responds to gravity by growing toward it. Then the stem grows up out of the soil. How does the stem know which way to grow? It responds to gravity by growing away from it. When plants respond to gravity it is called **geotropism**. Then the stem breaks through the ground into the air. The plant has begun its new life.

The sentences below tell how a new plant begins to grow. Write 1, 2, 3, 4, and 5 to show the correct order. The first one is done for you.

_____ The peach is eaten and the peach pit falls to the ground.

_____ The pistil of the peach tree flower grows bigger and turns into a peach.

_____ A seed begins to form inside the peach tree flower.

1 A bee carries pollen from the stamen of one peach tree flower to the pistil of another peach tree flower.

_____ The peach seed is in warm, wet soil and begins to grow.

Write True if the sentence is true. Write False if the sentence is false.

_____ 1. Seeds store food for the new plant.

_____ 2. Fruit keeps the seeds safe.

_____ 3. A seed needs only sunlight to grow.

_____ 4. The root grows up through the ground.

Across

1. when plants respond to gravity

4. a seed with one section of food

5. a seed with two sections of food

6. when the tiny plant begins to grow

Down

2. pollen is transferred to new flower

3. the seed of an oak tree

