

Amazing Soil...

Germinating!

What's coming up?

The giant oak tree in your neighborhood started as a little acorn. Seeds are plants that haven't begun growing. Everything we eat depends on plants. Most plants get their start from seeds.

Seeds have an outer coating called the seed coat. This seed coat is a lot like the coat you wear to protect you from cold or rain. In the same way the seed coat protects the seed from temperature extremes, organisms or falling on a hard surface (like a concrete floor)! Inside the seed is the embryo, which is the future plant. Along with the embryo is the cotyledon or cotyledons. These are the plant's first leaves. Also inside is the endosperm, which is like a food pantry to get the plant started before it begins making its own food.

The plant inside the seed begins to grow after the seed absorbs water. The water triggers an enzyme to tell the plant it is time to wake up and start growing. What is the first part to emerge? The root (also called the radicle). Next the leaves and stem shoot out and head for the soil surface.

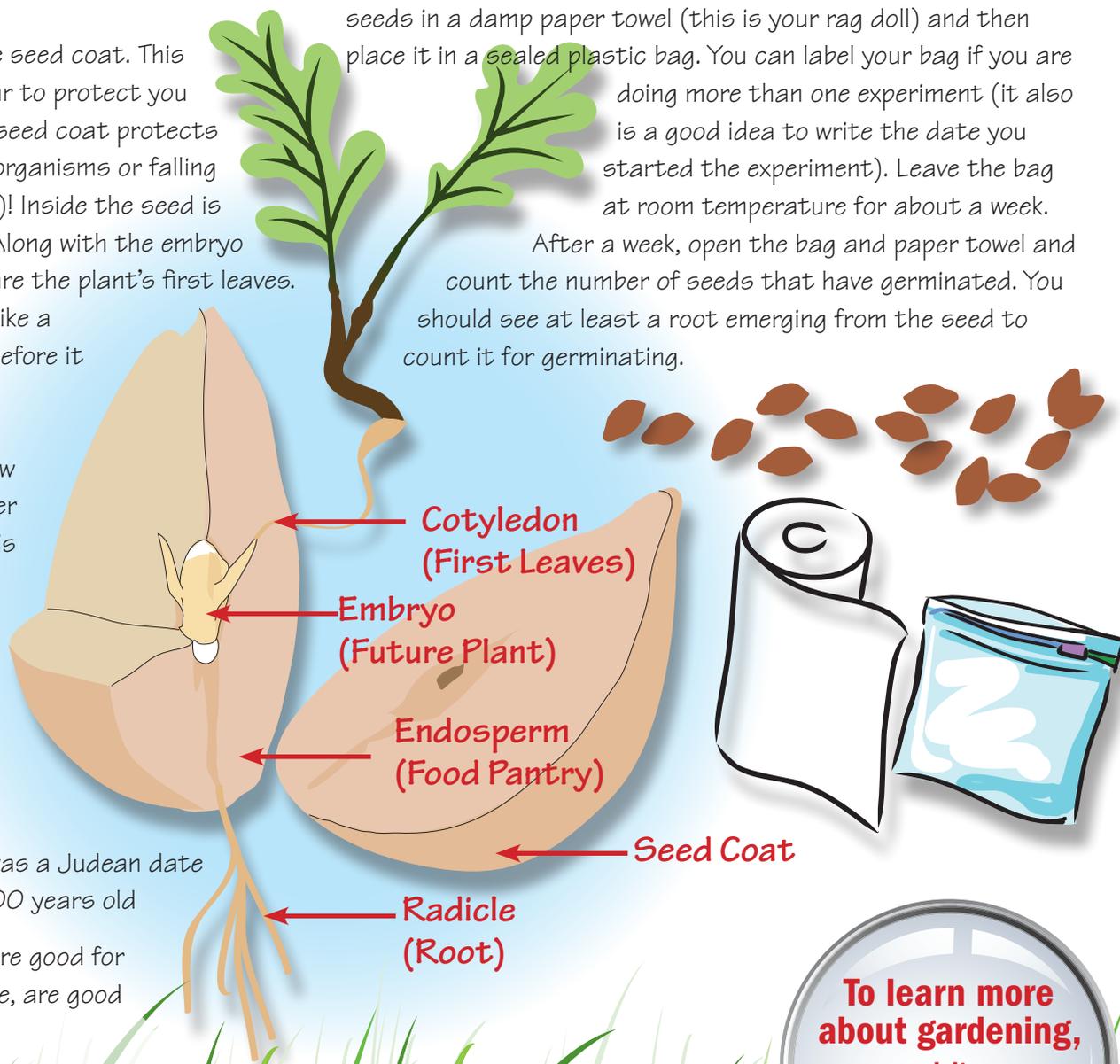
Did you know?

-  The oldest seed to germinate was a Judean date palm seed that was about 2,000 years old
-  Most of your vegetable seeds are good for 2-3 years, but some, like lettuce, are good for only one year

Fun to Do

You can make a rag doll seed germination experiment. Ask your parents if they have some seeds you can experiment with. Count out 100 seeds (50 if they are large like corn or bean). Place the seeds in a damp paper towel (this is your rag doll) and then place it in a sealed plastic bag. You can label your bag if you are doing more than one experiment (it also is a good idea to write the date you started the experiment). Leave the bag at room temperature for about a week.

After a week, open the bag and paper towel and count the number of seeds that have germinated. You should see at least a root emerging from the seed to count it for germinating.



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