



Second Nature - *Plants & Seeds*

Today we learned

Germination is the process of a seed growing into a plant. For a seed to germinate, it needs three **essential elements**: water, sunlight, and air. The **roots** take in water from the soil and the **stem** sucks water up through the plant. The **leaves** take in the sunlight and use photosynthesis to make sugar for the plant to grow. Lastly, an **experiment** is a procedure used to test a hypothesis (a guess or an idea) or to make a new discovery.

Now at home

Activity 1 - Seed Scientists

Do a seed germination experiment with your child! You'll need two seeds (any kind will do; you could even take some seeds from food in your home, such as tomatoes, peppers, or lemons). You will run two experiments simultaneously: seed 1 will be given all essential elements while seed 2 will be deprived of some of the essential elements.

Seed 1 - Wrap the seed in a damp napkin, place it inside a ziplock bag, and label it 'Seed 1'. Leave Seed 1 in sunlight and ensure that the napkin remains damp through the duration of the experiment. (Refer to the video for Seed 1).

Seed 2 - follow steps for Seed 1 but deprive it of some of the essential elements! For example, water it less, place it in a dark corner, or remove air from the bag! Ask your child to make a hypothesis about what will happen to each seed over the next seven days. Will they both germinate? Will one seed be healthier or grow faster than the other?

Check on your seeds every day for a week and have your child tell you their observations about each seed. They can keep a daily log, including drawings of each seed and/or a few sentences about what they see!

Activity 2- Germination Play

The germination play uses movement to show germination! Your child is the germination seed and you are the narrator.

Germinating Seed: Begin as a ball on the ground to represent the seed.

Narrator: "A seed needs water to grow." (Make watering can motions over the germinating seed).

Narrator: "...The roots and stem will sprout and the seed will begin to GERMINATE!"

Germinating Seed: Extend legs out from a ball position to represent roots, and sprout arms up to represent the stem.

Narrator: "Once the stem pokes out above the soil it takes in some fresh air." (Fan your hands to represent wind.)

Germinating Seed: Stand up with arms straight up to represent the stem. Take a few *deep* breaths of all the fresh air.

Narrator: "The stem sprouts leaves to absorb energy from the sun." (Wiggle your fingers to represent the sun).

Germinating Seed: Brings arms out your sides to represent the leaves.

Narrator: "And if everything goes well you will have SUCCESSFUL GERMINATION and a beautiful plant."

To send us any photos, videos, or questions, email us at education@sproutup.org!

