

Sprout Power

A warm place and a refreshing drink of water is all a seed needs to start growing. Your students can sprout seeds indoors in just a few days to create a delicious and nutrient-rich snack. By sprouting their own seeds in the classroom, your students will learn about the germination process, find out what conditions a seed needs to grow, and discover how to make their own healthy sprouts at home.



Dig Deeper

Sprouts have unique nutritional benefits. All of the nutrients a new plant needs to grow are contained within the seed, and these complex compounds are broken down into essential nutrients when the seed begins to germinate. Sprouts are rich in fiber, protein, and essential amino acids that the human body is not able to synthesize on its own. Sprouts are also a good source of Vitamins A, B, C, and E.

Many different seeds can be sprouted, including pulses (lentils, peas, beans), cereals (corn, wheat, rice), and oilseeds (sunflower, pumpkin, flax). Beans and lentils are among the easiest to sprout in the classroom. Lentils sprout in three to five days, while beans may take slightly longer. Packaged beans or



lentils purchased at the grocery store may be sprouted, as long as they are organic and have not been chemically treated.

Testa (Seed Coat) **Cotyledon (Stored Food)** **Plumule (Shoot)** **Radicle (Root)**

What You'll Need



- Observation logs
- Magnifying glasses
- Glass jars (without lids)
- Cheesecloth or paper towels
- Rubber bands
- Lemon juice
- Seeds to sprout



What To Do

TALK ABOUT SPROUTS

Start with some basic questions about sprouts: What is sprouting? What makes a seed sprout? What conditions does a sprout need to grow into a plant? Ask students if they have ever tasted sprouts (such as alfalfa) or seen them for sale at a grocery store. Why are sprouts usually healthier to eat than seeds?

INVESTIGATE SEEDS TO SPROUT

Distribute different types of seeds for your students to examine. Encourage the students to use the magnifying glasses to observe extra detail. Discuss the seeds' different sizes, shapes, and colors, and have the students make sketches in their observation logs. Write down predictions: which type of seed will sprout first?



SPROUT SEEDS

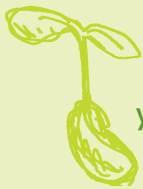
Place about ¼ cup of each seed type into a glass jar. Add two cups of water to each jar, and cover the jars with cheesecloth or paper towels, securing with rubber bands. This will allow for some air circulation while still retaining moisture. Place them in a safe place out of the sunlight. After the seeds have soaked overnight,

drain out the water. Rinse and drain the seeds once or twice daily, taking care to avoid puddling water. Assign student monitors to check the sprouts' progress.

INVESTIGATE AND EAT SPROUTS

After three to five days, your seeds will have sprouts of about half an inch and will be ready to eat. (Do not consume sprouts after five days, as bacteria may begin to form.) Rinse the sprouts and distribute the different types for your students to examine. Pass out magnifying glasses and encourage students to make close observations, writing down what they see and making sketches. Can they identify the root? The seed coat? The new leaves? Finally, squeeze lemon juice over the sprouts and taste. How do the flavors compare?

Plant to Person



Seeds and people both have basic requirements to grow and thrive. Ask your students what needs they share with plants.

Do they require good nutrition? Clean water? Fresh air? Lots of sunshine?

What needs do they have that plants don't have? Sleep and exercise? Protective clothing? What about emotional needs, such as the support of friends and family?

Take Action

Have students invite the school nutritionist to visit the class to discuss their school lunches and ideas for healthy eating.

Encourage students to prepare questions beforehand based on what they have learned. Can sprouts be served in the cafeteria? How can they get other healthy foods added to the school lunch menu?

Challenge students to follow up by speaking with other school staff such as the Cafeteria Manager or Principal.

