



SIMPLE SCIENCE

9 Easy Sunflower Sprout Experiments



Teacher's Guide

Children in all grades can have fun experimenting with sunflower sprouts. Here are easy, inexpensive instructions for sprouting seeds and 9 experiments to get you started. Assign an experiment to each student or divide students into small groups to conduct one or more experiments per group.

Materials: Sunflower seeds, clear plastic cups, paper towels

Instructions:

- Cut a paper towel in half; fold one piece in half and use it to line a plastic cup.
- Wad up the other half and stuff it into the cup to hold the liner in place.
- With your fingers, slide a sunflower seed between the paper liner and the side of the cup.
- Seed should be no more than an inch from the top of the cup. Put as many as four seeds in one cup.
- You can also try a couple more in the folds of the wadded towel.
- Put a little water into the cup, making sure that the water level is below the seeds. The paper liner will wick moisture up to the seeds.

Start lots of sprouts for everyone. Make sure to reserve some for controls—sprouts grown under normal conditions. As soon as their roots appear, place them where they'll get a little direct sunlight every day until well established.

1. Try soaking some seeds in water before planting them. Does being soaked affect sprouting? Try soaking some seeds in different substances like salt water, soapy water, vinegar, coffee, soda.
2. Put one cup of seeds in a totally dark closet or cupboard and one where it gets lots of light.
3. Vary the temperature of your germinating seeds. Place a cup in a refrigerator. Put another cup near, but not touching, an incandescent lightbulb to keep it warm.
4. When sprouts have grown an inch or two above the rim of the cup, turn cup on its side. Place in a sunny window. Keep towels damp. Wait a few days.
5. Place a sprout on a sunny windowsill, leaves facing into the room. Wait a day or two. Which direction are the leaves facing now? Put one cup of sprouts on a sunny windowsill and one on a shelf away from direct sunlight. Wait a few days. Are there differences between the two sets of sprouts?
6. When sprouts have four or six leaves, let their towel dry out completely and wait for them to wilt. Then water them. Will they revive?
7. Remove a sprout from its cup and cut its roots off. Place the sprout in a small cup of water that you've dyed with several drops of red food coloring. Wait several days and then look at the leaves with a magnifying glass.
8. What would happen if you added salt to the water in the bottom of your cup? What would happen if you added coffee, sugar, baking soda or vinegar?
9. Try tasting the leaves of your sunflower sprouts—be sure they aren't moldy! Would you eat sunflower sprouts in a salad? Why is it a good thing to eat a plant that is still alive?