

Directions for Starting the Radish or Bean Seeds (Teacher Master)

Materials

- 8- or 16-oz Styrofoam cups (30, plus a few extra)
- Scissors or knife
- Potting soil
- Scoop or measuring cup
- Small watering can
- Radish or bean seeds (6 seeds per cup)
- Craft sticks (2 per No Water plant)
- 4 disposable, 9 × 12" rectangular pans to hold water and cups

1. Decide how many cups you need to set up for each condition, assuming that each pair of students will have 2 cups (water and no water). For a class of 28 students, you'll need 28 cups (14 water and 14 no water). It's a good idea to plant some extra seeds.



2. Use scissors to poke a hole in the bottom of each Styrofoam cup so that water can soak into the soil through the hole.
3. Use a measuring cup or scoop to fill each cup with soil nearly to the top. Press down the soil so that it's moderately compact (not tightly compact).
4. Pour water into the each cup until it runs out of the hole in the bottom of the cup.



5. Place about 6 radish or bean seeds on top of the soil in each cup. Spread the seeds apart.
6. Cover the seeds lightly with potting soil and pour water over the soil and seeds to make sure they're both wet.



7. Fill a baking dish with water, set all of the cups in the dish, and place the baking dish in a sunny, warm spot.
8. Water the seed cups every day to make sure that the soil on the top stays damp or moist but not wet. (**Note:** There shouldn't be a puddle of water on top of the soil.) When the seeds have sprouted and the plants are growing well, students can plan their water/no-water experiment, and you can adjust your watering schedule.
9. Once students begin their observations, don't water any of the seed cups with the crossed craft sticks on top (the no-water condition). Also make sure that students don't start watering those cups themselves during the two-week observation period!