

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)
- 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 (light or no light). For a class of 28 students, you'll need 28 cups (14 light and 14 no light). 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 six 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.)
9. Once students begin their observations, make sure that the cups in the no-light condition (the cups with crossed popsicle sticks on top) aren't exposed to any light, except when students are making their observations. Immediately after each observation, return the cups to their no-light condition.