

# SEEDS FOR THOUGHT



## Materials

- Clear plastic 2-liter drink bottle, cut in half to make a planter)
- Light-colored paint pen
- Ruler
- Potting soil
- 25 soybean seeds
- Plastic wrap
- Rubber bands
- Water

## DIRECTIONS

**This experiment will determine how the depth of planting affects germination. It incorporates the activities of measuring with a ruler and calculating the percentage rate of germination of the soybean seeds.**

1. Beginning at the bottom of the "planter," use the ruler to measure each inch up to 5" tall. Mark the inches with the paint pen.
2. Fill planter with about 1" of soil. Press down.
3. Space five soybean seeds along the sides of the planter. Add another inch of soil. Press.
4. Plant five more seeds the same way.
5. Repeat layers until all 25 seeds are planted.
6. Water until the soil is moist, but not soggy.
7. Cover the planter with clear plastic wrap and put a rubber band around the top.
8. Predict and record which seeds you believe will germinate first. Watch your seeds every day and draw what you see. When the plants begin to grow, remove the plastic wrap.

### Questions:

- Which layer of seeds germinates first?
- Which plants made it to the surface first?
- After a few days, determine the percentage rate of germination.

### Optional activity:

Mist the leaves with a mixture of water and gibberellic acid (a growth hormone from the seed store). Measure and record the leaf expanse every few days.