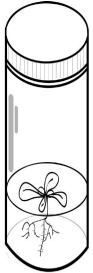


Plant in a Jar Experiment

There are three important ingredients plants need to grow:



sunlight, water and nutrients

You will be "planting" cress seeds of the same genotype (they have the same genes). So you can team up with a friend and conduct an experiment to see if changes in the environmental can have an effect on a plant's phenotype (how it looks).

Equipment:

- cress seeds
- plastic specimen jars
- peat pellet or 2cm of soil
- solutions for watering
- tweezers

The Experiment

Decide what aspect of plant growth you would like to test.

1. Get two specimen containers and put your name on them
 - a. write "**control**" on one
 - b. write "**test**" on the other.
2. If you are using peat pellets, add 30 mL of water to the control jar.
3. In the test jar, add 30mL of your test solution, like salty water. If you are going to test how sunlight deprivation effects plants, add 30mL of plain water into each jar, but plan to put the test jar into darkness.
4. Drop one peat pellet into each jar. (If you are using soil, fill 1cm of soil into the jar)
5. Once the peat or soil is fully hydrated (wet), carefully place the seeds on top.

Congratulations, you have just set up a scientific experiment!

Controls (the jars with water only) can be compared and contrasted to the **tests** to see what makes plants happy... and what doesn't!

Due to a plant's ability to make its own food using light (photosynthesis) and to recycle the gases contained in the jar (transpiration), **there is no need to water your plants**. For most of the experiments, you can open the jar occasionally to look at the growth.

Use your knowledge and some research to help you form a **scientific hypothesis**.

Your Experimental Hypothesis

(What are you testing and what do you think will happen?)

Results:

Conclusions/Discussion:
