

# Plant Patterns

Leader



Here is a simple experiment to generate real data on growth changes. Students need the experience of doing a long-term project and preparing a written report of the results.



You will need:

- Seeds
- Pots
- Soil
- Graph paper
- Ruler (standard or metric)

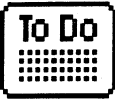


Do this:

- Discuss introductory remarks on Student Page. Especially discuss how to prove a statement.
- Students should determine equipment and materials needed, then:
  1. Plant seeds in four pots—location
    - #1 in sunny spot with water
    - #2 in sunny spot without water
    - #3 in dark place with water
    - #4 in dark place without water
  2. Measure growth in all four pots at regular intervals (daily—about same time of day).  
[Help students to set up charts (column headings).]
  3. Maintain charts to collect data.
  4. Make several graphs to describe various types of data collected.
  5. Complete final report.
- Check progress of data collection periodically. This may take one or more months.



Student \_\_\_\_\_



Do this:

Every project may not be completed in a class period or in a week. Some projects require the collection of data over an extended period of time. One which may be used as a Science Fair Project is data collected about plant growth. It is said that plants need sunlight and water. Can you prove that this is so? How? You may want to plan this project with a friend.

- 1. Plant seeds in four pots—location
  - #1 in sunny spot with water
  - #2 in sunny spot without water
  - #3 in dark place with water
  - #4 in dark place without water
- 2. Measure growth in all four pots at regular intervals (daily—about same time of day).
  
- Be sure to
  - 1. List all equipment and materials used and their location.
  - 2. Maintain tables or charts of dates for planting, of results of all measurements and of time interval for measuring, of changes observed, and of description of results.
  - 3. Draw pictures or take photographs showing changes/results to be included in project report.
  - 4. Make several graphs from data collected.
  - 5. Prepare a written report that includes all written records, graphs, drawings/photos, and a paragraph about what your experiment/project proved.



WHAT I FOUND