

Activity #1: *The Growth of Seedlings*

Objective 19: Science Inquiry

Objective 21: Life Science



In this activity, students observe the effects of various conditions on plant growth.

Description: Using sprouted seedlings, students set up and conduct an experiment on plant growth.

► **Directions**

1. Provide each student or pair of students with a half-pint milk carton (with small holes in the bottom for drainage), soil, and two or three bean seeds.
2. Have students plant seeds in the containers at equal depths, and water them thoroughly.
3. After seeds have sprouted from the soil, divide the containers into 3 groups.
4. Have students label the groups according to the growing conditions that will be created for each group:

<p>NO LIGHT</p> <p>Plants have soil, water, and air. Cover plants with brown paper bags.</p>	<p>NO WATER</p> <p>Plants have soil, light, and air. Do not water after the plants show their first true leaves.</p>	<p>CONTROL</p> <p>Plants have soil, light, air, and water, as needed.</p>
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5. Ask students to predict what will happen to the plants in each group. Write the predictions on the board or in a place where they can be seen.
6. Using poster paper or the chalkboard, have students maintain a graph for each plant, showing growth by counting the number of leaves twice a week.
7. After a few weeks, compare the graphs and discuss the results.
8. Ask the following question:
 - What does a plant need in order to grow and be healthy? (Answer: soil, air, light, and water.)
9. Compare students' predictions with the actual results.