Plant Phototropism

Topic or Concept

Green plants grow toward light.

Objective

Student will be able to observe and describe the rotation of plants toward light.

Materials **Available from Region 20 Living Science Materials Center**	**Enrichment Activity**
LM-71 Geranium LM-72 Coleus LM-73 Cacti LM-83 Sunflower Seeds	**Problem** How does light affect plant activity? **Procedure** 1. Grow sunflower seeds into grown plants. 2. Obtain four plants each of geranium, coleus and cacti. 3. Put two plants each of sunflower, geranium, coleus and cacti under a bright light and label "experimental". 4. Place the remaining plants under a second bright light and label them "controlled". 5. After several hours, move the light to the right of the "experimental plants". 6. Observe and record the changes. 7. Several hours later, move the light to the left side. 8. Observe and record any changes in the direction the plants' leaves are facing. 9. Compare the plants each time you observe them to plants labeled "controlled". 10. Leave light on one side of "experimental" for one week. Observe, measure and make drawings of growth and position of "experimental" and "controlled". **Extension** Set up experiment with full sunlight, ultraviolet light, infrared light, "Grow Lux" light, incandescent light and fluorescent light. Compare phototropic affect of each type.