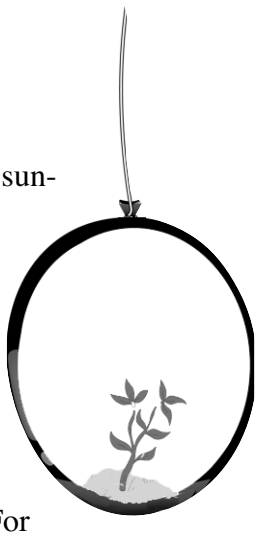
Balloon plants



Materials
- Large, clear balloons
- Markers; string
- Funnels
- Quick-growing seeds like radish, lettuce or spinach
- Potting soil
- Water

Objective
Understanding the relationship between plants and their environment.

Suggested grade levels
3-6
(This is similar to the mini-greenhouse project for younger students.)

Alaska Content Standards
Science, A 14 a-c; B 1-4; D 1-2; Language arts, A 4; C 1-2, 5

Define Terms
sprout
oxygen
carbon dioxide
nutrients

This project presented by Alaska Agriculture in the Classroom through funding from the Alaska Division of Agriculture and the Alaska Farm Bureau. For information, visit www.agclassroom.org/ak

Introduction

Plants need water, soil or other special medium, sunlight and carbon dioxide to grow. But how much do plants need of each? Is one more important than the other? Will seeds sprout but not grow if all the necessities aren't there?

Directions

Students should be placed in teams of two or three to allow variations of planting techniques in each group, or assign different teams to different strategies. For example, one team might not water their plant; another may use water and not soil; another might hang their balloon in the closet.

1. Use funnel to pour a small amount (roughly 1/4 cup) of soil into the neck of the balloon

2. Add water, then seeds.

3. Inflate and tie the balloon, then secure a string around the knot.

4. Hang the balloon.

5. Have students check their balloons daily, recording any changes for 10 days.

Discussion points

1. How did the plant get its carbon dioxide?

2. What happens when the CO_2 runs out?

3. Where is the plant getting its food?

4. What happened to seeds that did not have soil or did not have water?

5. How did plants grow differently depending on the amount of sunlight they received?

Related website

http://www.mnh.si.edu/garden/

Credit: National 4-H Foundation