Activity 11



Learning Outcomes

Students will: Gain an understanding of the impact of soil health on plant life.



Grow Plants in Compost

Skills

Students will:

- Plan and undertake an experiment
- Analyse, present and report results
- Work collaboratively or as individuals.

Values and Attitudes

Students will:

- Appreciate the benefits of recycling organic waste
- Develop enthusiasm for recycling
- Appreciate the need to care for the land and community.

Materials Needed

- Compost
- Empty six-pack planter containers (one per group)
- Drip trays for planters
- Potting soil (or soil from the schoolyard)
- Large seeds, such as bean or sunflower
- Measuring cups
- Worksheet A Plants in Compost.

Background information

Adding compost to soil greatly improves its structure, by helping it to hold water, achieve a good airflow, and provide nutrients for plants. Compost also protects plants from diseases, which makes them healthier – ensuring a healthier source for food for animals and humans.

Management Skills

This activity can be undertaken by individuals or groups and you can use compost from a bin or worm farm. If you use compost from a worm farm, it's important to only use one part worm compost to two parts soil because of its intensity.

Results of plants grown in small containers can vary tremendously and may not give an accurate reading of the effects of compost. Varying container sizes will add to the learnings from this exercise.

Activity 11



Activity

During this activity students will:

- Discuss as a class, what compost is, what soil is, and how compost benefits plants.
- Create six different sample containers, and label two of each with the headings: #1 Compost, #2 Compost/Soil, #3 Soil.
- Fill the two sections labelled #1 with just compost.
- Measure out one part compost, one part soil. Mix and fill the two sections labelled #2 with this mixture.
- Fill the two sections labelled #3 entirely with potting soil.
- Place three seeds in each of the sections (using beans or sunflowers will speed the process as they sprout easily).
- Water the seeds as directed on the seed packet. Set aside in a warm, sunny area.
- Use a worksheet to make predictions about the experiment: Which soil mix will sprout the most seeds? Which will grow the fastest? Why?

- After one week, return and examine the progress of the seeds. On the observation sheet, record the number of seeds that sprouted.
- Measure the height of each plant and record on the worksheet.
- Continue to measure the height of each plant every few days and record on the sheet.
- After two to three weeks, examine the data gathered and draw conclusions from it: Which pot grew the tallest plants? Which one looked the healthiest? Why? If they were going to plant beans, what mixture of compost to soil would they use?
- The bean sprouts can be replanted, taken home, or returned to the compost pile.



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Worksheet A



Plants in Compost

Name:	
Plant Species:	Date Planted:
Potting Mixtures:	
1	
2	
3	

Sprouting	Plant	Date	No. of Seeds Sprouted
Section No.1			
Section No.2			
Section No.3			

Growth	Plant	Date	Height
Section No.1			
Section No.2			
Section No.3			

