Lesson Plans: Your Own Greenhouse



Objective

The objective is to make your own small greenhouse and in a simple way to test its effect on temperature.

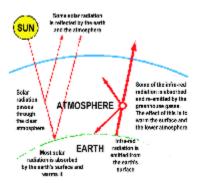
Materials

Each student or group of students will need the following:

- Plastic bottle
- Nail
- 2 thermometers

Important Points to Understand

In cooler climates greenhouses are used to control the environment of plants so that they can grow in a season or in an area where they would not normally grow. When you have a chance to visit some cold countries like New Zealand and some parts of Australia, try to visit a greenhouse and see how its environment is different to that outside.



Procedure

- 1. Make a hole near the top of the plastic bottle with the nail and insert one thermometer.
- 2. Place the second thermometer next to the bottle.
- 3. Make sure that the same amount of sunlight reaches both the thermometers as shown in the figure.
- 4. Record the temperature values from both thermometers after 10 minutes or so.
- 5. Take the temperature records again after another 10 minutes. You may repeat that procedure a few times

Questions

- 1. Do both thermometers record the same temperature?
- 2. If the answer is "no" for the previous question, which one is higher?
- $3. \quad \hbox{\it Can you explain why these two temperature records not the same?}$
- 4. Can you give a similar example to demonstrate the greenhouse effect in our daily life?