Greenhouse Effect

Overview and Objective

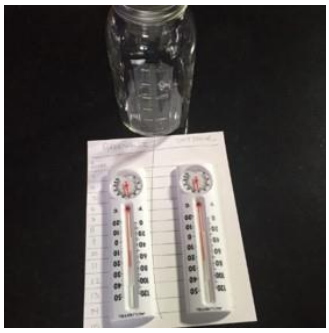
A greenhouse stays warm inside, even during winter. Why? Sunlight shines in and warms the air inside. Heat is trapped by the glass and cannot escape. This allows growers to produce fruits and vegetables year-round.

With sufficient sunlight, the temperature inside a greenhouse may become much higher than the outdoor temperature, requiring growers to ventilate all day to literally keep plants from cooking inside.

For this experiment, we're going to demonstrate that you can find a measureable difference in temperature between greenhouse air and exterior air in just minutes.

What you will need:

- Two thermometers
- Paper and pencil
- A clear jar
- Wristwatch/timer
- Sunny area!



Process:

1. Lay your thermometers in direct sunlight for 2-3 minutes. (This is a fixed variable. We want to make sure they both read the exact same temperature.)
2. While you wait, create a chart containing two columns, one labeled "greenhouse" and one labeled "outdoor thermometer".
3. Record the time and the two temperatures on your chart.
4. Put one of your thermometers in a jar and seal it.
   Make sure it is in direct sunlight and the thermometer is not shadowed by the lid.
5. Record your temperature ever minute for 15 minutes.

Did the container affect the temperature?

Share your experiment results with us!

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