

INSTRUCTIONAL GUIDE

Contents

Kit Contents

- 500mL white can
- 500mL black can
- 500mL silver can
- Three 1-hole stoppers

Recommended for Activities:

- **Digital Thermometer (68-6300)** or temperature sensors
- Heat lamp or 200W light bulb
- Clock or Stopwatch



Instructions

1. Fill the cans with equal amounts of water.
2. Place a thermometer or temperature sensor in each can, making sure the bulb is in the water.
3. Record the initial temperature of each sample in the data table.
4. Place the cans at equal distances from the heat lamp and record the time (or start the stopwatch).
5. After 5 minutes, record the temperature of the water in each can.
6. Repeat for at least 25 minutes, or longer if possible.
7. Evaluate the heat absorbed by each of the three cans.
8. If using a datalogger, create and print a graph of each temperature curve. Compare the curves.

Note: One thermometer or sensor may be used, moving from can to can, if it is allowed to stabilize in each can before recording.

Related Products

Ice Melting Blocks (P6-7060) Touch these two black blocks, and one feels cooler. Place an ice cube on each block. One completely melts before your eyes, while the other stays frozen!

Solar Furnace (96-7280) The Solar Furnace effectively showcases the transfer of energy between solar radiation and thermal energy. Light from the sun's rays are reflected off a large parabolic mirror and are focused onto a black colored copper cup containing water. In a few minutes, the water boils.