

Sample Procedure

1. Measure and pour 50 mL of sand into one of the white plastic trays. Gently tap the tray on a table to flatten the surface of the sand.
2. Measure and pour 50 mL of water into the second white plastic tray.
3. Place a thermometer in each tray. Insert the thermometer bulb into the substance, and rest the other end of the thermometer on the edge of the tray.
4. Protect the thermometer bulb from direct light and insulate the substances by placing a clear plastic film on top of each tray. The widest part of the darkened edge should cover the thermometer bulb.
5. Create a data table for recording the temperature in each tray. You will read the temperature every two minutes for 20 minutes.
6. Record the initial temperature in each tray in your data table.
7. Place the trays the same distance from the light source. If you are outside, place the two trays side by side on a flat surface.
8. Begin timing.
9. Record the temperature of the substance in each tray once every two minutes for 10 minutes.
10. At exactly 10 minutes, record the temperature in each tray. Then remove the trays from direct light, either by placing the trays in the shade or turning off the light source.
11. Continue recording the temperature of both substances for 10 more minutes.