

Quick Lab

Wind Chill

MATERIALS

- 23 cm × 23 cm pan
- room-temperature water
- thermometer
- electric fan

SAFETY**PROCEDURE**

1. Place a 23 cm × 23 cm pan on a level table. Fill the pan to a depth of 1 cm with room-temperature water.
2. Lay a thermometer in the center of the pan, with the bulb submerged. After 5 min, record the water temperature. Do not touch the thermometer.
3. Place an electric fan facing the pan and a few centimeters from the pan. Turn on the fan at a low speed. **CAUTION:** Do not get the fan or cord wet.
4. Record the water temperature every minute until the temperature remains constant.

ANALYSIS

1. How does the moving air affect the temperature of the water?

2. If the moving air is the same temperature as the still air in the room, what causes the temperature to change?

3. How would you dress on a cool, windy day to stay comfortable? Explain your answer.

