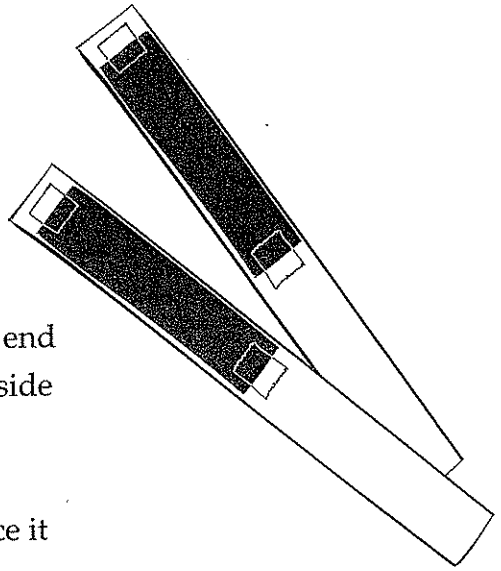


CONDUCTION THROUGH MATERIALS

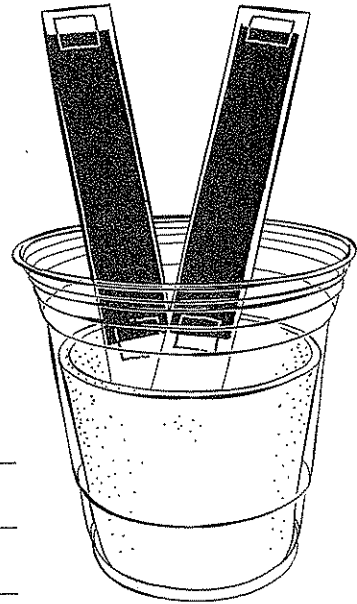
Materials

- | | |
|----------------------|--------------------|
| 1 Steel bar | 1 Aluminum bar |
| 2 Temperature strips | • Tape |
| 1 Large clear cup | 1 Plastic-foam cup |
| • Hot water | 1 Thermometer |



Preparation and setup

1. Position a temperature strip on the steel bar with one end close to the end of the steel bar. Make sure the shiny side is up. Tape it in place.
2. Prepare the aluminum bar in the same way.
3. Fill the plastic-foam cup half full with hot water. Place it in a large clear cup for stability.
4. Place the bars in the water with the temperature strips up.



Observations and conclusions

1. Starting temperatures

water _____ steel _____ aluminum _____

2. What happened when the metal bars with temperature strips were placed in the hot water? _____

3. Feel the two metal bars. How did heat get from the hot water to the temperature strip far above the water level? _____

4. Did the metals conduct heat? Which metal is a better conductor? Why do you think so?

