

## Chapter 5

## REINFORCEMENT

Use with Section 2

# ● Temperature and Thermal Energy

Complete each sentence.

- The words \_\_\_\_\_ and \_\_\_\_\_ are commonly used to indicate temperature, but they are not scientific terms because they mean different things to different people.
- Temperature really is a measure of the \_\_\_\_\_ of the particles in any material.

Complete the chart.

Two Scales for Measuring Temperature			
Name of Scale	Abbreviation	Temperature at Which Water Freezes	Temperature at Which Water Boils
Fahrenheit		°	°
Celsius		°	°

Answer each question.

- What term refers to the total kinetic energy of the particles in a material? \_\_\_\_\_
- What term refers to an energy transfer that causes a change in temperature? \_\_\_\_\_

Assume that you have just taken a pan of cookies out of the oven and set them on the counter to cool. Draw a picture of the cookies in the pan and sitting on the counter. Add wavy lines to show the heat from the cooling cookies.

- What term refers to the average kinetic energy of the particles of one of the cookies?  
\_\_\_\_\_
- Imagine you put your hand next to one cookie without touching it. Your hand feels warm. By what method(s) has the thermal energy of the cookies transferred to your hand?  
\_\_\_\_\_
- Imagine you move the cooking sheet and touch the spot where it had been sitting. It feels warm. How did the thermal energy of the cookies transfer to the stove?  
\_\_\_\_\_
- The arrows you drew above the cookies show that the air above the cookies is rising in a current.
  - By what method is the thermal energy causing the air to move? \_\_\_\_\_
  - What kind of current is this? \_\_\_\_\_
  - What specific name is given to this kind of current when it is in the air? \_\_\_\_\_