

Chapter 26

REINFORCEMENT

Use with Section 2

● Temperature and Thermal Energy

Complete each sentence.

1. The words _____ and _____ are commonly used to indicate temperature, but they are not scientific terms because they mean different things to different people.
2. 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.

3. What term refers to the total kinetic energy of the particles in a material? _____
4. 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.

5. What term refers to the average kinetic energy of the particles of one of the cookies?

6. 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?

7. 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?

8. The arrows you drew above the cookies show that the air above the cookies is rising in a current.
 - a. By what method is the thermal energy causing the air to move? _____
 - b. What kind of current is this? _____
 - c. What specific name is given to this kind of current when it is in the air? _____