SECTION REVIEW

extension

Integrating Health

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Keyword HF6HATX

1. A hot copper pan is dropped into a tub of water. If the water's temperature rises, what happens to the temperature of the pan? How will you know when the water and copper pan reach thermal equilibrium?

2. Oxygen condenses into a liquid at approximately 90.2 K. To what temperature does this correspond on both the Celsius and Fahrenheit temperature scales?

3. The boiling point of sulfur is 444.6°C. Sulfur's melting point is 586.1°F lower than its boiling point.

a. Determine the melting point of sulfur in degrees Celsius.
b. Find the melting and boiling points in degrees Fahrenheit.
c. Find the melting and boiling points in kelvins.

4. Which of the following is true for popcorn kernels and the water molecules inside them during popping?

a. The temperature of the kernels increases.
b. The water molecules are destroyed.
c. The kinetic energy of the water molecules increases.
d. The mass of the water molecules changes.

5. Interpreting Graphics Two gases that are in physical contact with each other consist of particles of identical mass. In what order should the images shown in **Figure 5** be placed to correctly describe the changing distribution of kinetic energy among the gas particles? Which group of particles has the highest temperature at any time? Explain.

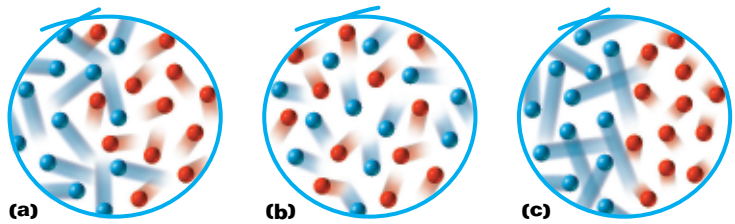

Figure 5

6. Critical Thinking Have you ever tried to make popcorn and found that most of the kernels did not pop, as shown in **Figure 6**? What might be the reason that they did not pop? What could you do to try to make more of the kernels pop?

Figure 6