Year 7 Unit 5 Changing States of Matter

Determine if the following statements are true or false.

_____ 1. Matter rarely changes state.

_____ 2. A gas changes directly to a solid by freezing.

_____ 3. The average kinetic energy of particles of matter can be measured with a thermometer.

_____ 4. All matter has the same freezing and boiling points.

_____ 5. A liquid can change to a gas without boiling.

_____ 6. The melting point of a substance is the same as its freezing point.

_____ 7. Iron melts at a lower temperature than water.

_____ 8. Evaporation occurs only at the exposed surface of a liquid.

_____ 9. Vaporization explains why a mud puddle dries up on a sunny day.

_____ 10. Ice changes directly to water vapor through the process of deposition.

Circle the letter of the correct choice.

1. The process in which clouds form is

   a. sublimation.

   b. evaporation.

   c. condensation.

   d. none of the above

2. Which statement is true about changes of state?

   a. They involve energy.

   b. They cannot be undone.

   c. They involve chemical processes.

   d. They change the chemical makeup of matter..

3. Liquid water changes to ice when

   a. the water loses energy.

   b. the water gains energy.

   c. melting occurs.

   d. two of the above

4. Melting point is the temperature at which matter changes to a

a. gas.

b. liquid.

c. solid.

d. plasma.

5. The boiling point of water is

a. 0 °C.

b. 32 °F.

c. 98 °F.

d. 100 °C.

6. The bubbles in boiling water contain

a. air.

b. salt.

c. liquid water.

d. water vapor.

7. Which statement is true about evaporation?

a. It occurs when a liquid boils.

b. It occurs when a liquid reaches its boiling point.

c. It happens more quickly at higher temperatures.

d. all of the above

Fill in the blank with the appropriate term.

1. During a change of state _____ is either lost or gained.
2. _____ is the average kinetic energy of particles of matter.
3. The temperature at which a liquid changes to a solid is its _____.
4. The melting point of ice is _____ °C.
5. A gas condenses when it is cooled below its _____.
6. Changes of state are _____ changes in matter.
7. The process in which frost forms on a window is _____.