

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 _____.