

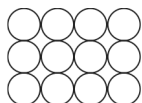
RQ Solids Liquids Gases

Name: _____

Date: _____

1. Solids have a definite shape and volume. This is because
- A. the molecules in solids move past each other easily.
 - B. the molecules in solids stay in a definite location and vibrate.
 - C. the molecules in solids move freely in all directions.
 - D. the molecules in solids do not move at all.

2. A scientist uses an instrument to observe the pattern of molecules in a substance. The picture below shows what the scientist sees.



What state of matter is the scientist *most* likely observing?

- A. gas
 - B. liquid
 - C. vapor
 - D. solid
3. Which of the following is characteristic of a gas?
- A. They have a definite shape and a definite volume
 - B. They have a definite volume but take the shape of their container
 - C. They take on both the shape and volume of their container
 - D. They consist of nuclei of atoms without the electrons

4. Amelia puts water in an ice-cube tray and places the tray in a freezer. What will happen to the molecules in the water?

- A. The molecules will lose mass.
- B. The molecules will gain mass.
- C. The molecules will move faster.
- D. The molecules will move slower.

5. A teacher places an item in a box. The item takes the shape of the entire container. This item is *most likely*

- A. air.
- B. milk.
- C. water.
- D. paint.

6. Which of the following is characteristic of a liquid?

- A. They have a definite shape and a definite volume
- B. They have a definite volume but take the shape of their container
- C. They take on both the shape and volume of their container
- D. They consist of nuclei of atoms without the electrons

7. Within a substance, atoms that collide frequently and move independently of one another are most likely in a

- A. liquid.
- B. solid.
- C. gas.
- D. crystal.

8. Use the picture below to answer the question below.



As the ice cube melts, what happens to the water particles?

- A. They speed up.
- B. They slow down.
- C. They increase in size.
- D. Their motion and size stay the same.

9. In which of the following does the energy from heat cause atoms to vibrate enough to be able to slide past each other while still remaining attached to each other?

- A. solids
- B. liquids
- C. gases
- D. all of the above

10. Which of the following is characteristic of a solid?

- A. They have a definite shape and a definite volume
- B. They have a definite volume but take the shape of their container
- C. They take on both the shape and volume of their container
- D. They consist of nuclei of atoms without the electrons