

Solid, Liquid and Gas



Read the passage. Then answer the questions in full sentences.

Name _____ Date _____

All matter is made of atoms, and atoms join together to make molecules.

Matter is usually a solid, a liquid or a gas. In a solid, the molecules hold tightly to one another, so a solid keeps its own shape.

In a liquid, they hold on less tightly. A liquid takes the shape of its container, but always takes up the same amount of space. In a gas, they barely hold on at all, so a gas spreads out to fill its whole container.

Water can be all three. Cooled below 32 degrees Fahrenheit (0 degrees Celsius), it freezes into ice. Heated above 212 degrees Fahrenheit (100 degrees Celsius), it turns into a gas called water vapor. Ice, water and water vapor are all made of the same molecule.

A liquid turning into a gas is called evaporation, and it takes energy. When you step out of a pool, the water on your skin evaporates with heat from your body, so you feel cool.

1. What are the three states that matter is usually in?

2. What happens to water when it is cooled below 32 degrees Fahrenheit?

3. Why do you feel cool when you step out of a pool?

4. You pour a glass of juice into a bowl. What changes about the juice, and what stays the same?

Answer key

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1. What are the three states that matter is usually in?
A solid, a liquid and a gas.
2. What happens to water when it is cooled below 32 degrees Fahrenheit?
It freezes into ice, a solid.
3. Why do you feel cool when you step out of a pool?
The water on your skin evaporates, and that takes heat from your body.
4. You pour a glass of juice into a bowl. What changes about the juice, and what stays the same?
Sample answer: its shape changes to fit the bowl, but there is just as much juice as before. A liquid takes the shape of its container but always takes up the same amount of space.