

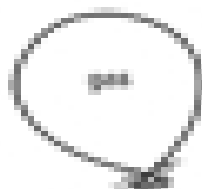
Name: \_\_\_\_\_

## Solid, Liquid, and Gas

The three states of matter are solid, liquid, and gas. The molecules of a solid are close together and moving slowly or not at all. If you add energy, the molecules begin to move faster and further apart. This change in energy causes a change in the phase of matter to liquid. Add a little more energy and the molecules dance excitedly, spacing themselves even further apart. The matter changes to a gas.

You can study the three phases of matter using balloons.

**Directions:** Study the three phases of matter using balloons. Write your observations.



Fill balloon 1 with a gas. You can fill the balloon with air from your lungs, an air pump, or water vapor. (Watch your teacher heat up liquid water. As water vapor forms, the balloon will fill with the gas.) What shape is the balloon? What happens as you manipulate it?

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Fill balloon 2 with a liquid. You can fill the balloon with water or another liquid. What shape is the balloon? What happens as you manipulate it?

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Fill balloon 3 with a solid. You can fill the balloon with water and then freeze the balloon. Frozen water, ice, is a solid. What shape is the balloon? What happens as you manipulate it?

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