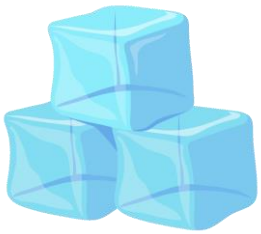
States of Matter

Matter is all around us - it's everything we can see and touch! Matter can be in different states, or forms. There are three main forms of matter: solid, liquid and gas.

States of Matter



Solids stay in the same place and keep their shape. For example, if you have a toy car, it will stay in one shape, and it will stay in one spot until you pick it up to move it somewhere else - that's the solid state of matter! Sometimes you can bend solids like putty or clay, but if you stop bending them, they keep their shape. Other examples of solids are ice cubes, rocks, and pencils.

Unlike solids, liquids can flow and they don’t hold their own shape. Take water as an example. When you pour water into a cup or a bottle, it takes the shape of whatever container you put it in, but it still moves around inside the container. Honey is another liquid. Even though honey is thick like syrup, it's still a liquid because it flows around if you tilt the jar.

The third state of matter is gas. A gas doesn't have any shape at all. Air is an example of a gas - air can fill up any room no matter what size or shape it is! Gases move around quickly and spread out everywhere to fill any space. The air we breathe and the clouds in the sky are examples of gases. Gas can also be found inside a balloon. When we heat up water, it evaporates and turns into steam. Steam is another gas. We can’t see gases.

Changing State

It is possible for matter to change from one state to another. Heat can change water a solid to a liquid, and heat can change a liquid to a gas.

Think about an ice cube. In the freezer, where the air is very cold, the ice cube is solid. If we take the ice cube out and put it on the kitchen bench where the air is much warmer, the ice will begin to melt and turn into water. If we put the water in a pot on the stove the water will get hotter and eventually the heat will turn the water into steam, a gas.

Solids, liquids and gases are all around us and are important for our everyday life!

States of Matter Questions

1. What are the three different states of matter?

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2. What are three examples of gases the author gives?

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3. Which of the states of matter holds its own shape?

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4. What can cause matter to change state?

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5. List a difference between a gas and a liquid.

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6. List a difference between a liquid and a solid.

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7. Explain what the picture third from the top is showing.

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8. Make a list of the items in your fridge at home and write down the state of matter of each.

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9. 'Solids, liquids and gases are important for our everyday life.' Explain how.

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