States of Matter

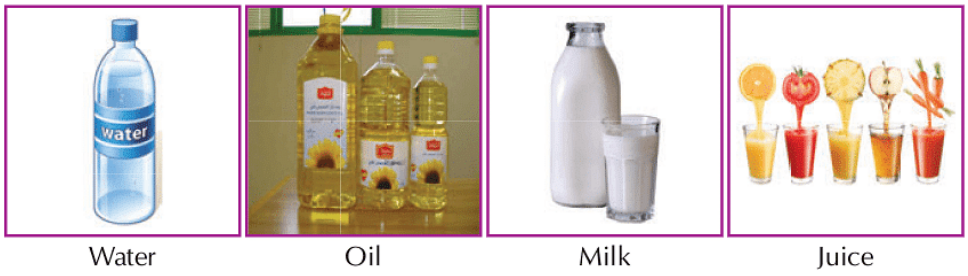
We see a number of things around us. These things take up space and also have weight. Anything that occupies space and has weight is called matter. For example, table, chair, water, air, etc. Matter is all around us. Scientists classify matter into three main forms or state – solid, liquid and gas. Matter is made up of very small particles called molecules. Molecules are arranged in different ways in different things.

Solids

Solid is a state of matter that has a definite shape and volume. In solids, molecules are closely packed. That is why solids are hard. Solids do not change their shape when moved from one container to another container, i.e., they have a definite shape and a definite volume. For example, chair, dice, cup, book, wood, etc.

Liquid

Liquid is a state of matter that does not have a definite shape and flows easily. The molecules that make up a liquid are loosely packed than those in solids and are able to move freely. Liquids take the shape of the container in which they are kept and have a fixed volume. For example, water, oil, milk, juice, etc.



Gases

Like liquids, gases also do not have a definite shape.

The molecules that make up gases are more loosely packed than liquids.

They are able to move randomly. Like liquids, gases take the shape of the container they are kept in They do not have a fixed volume. Air is a mixture of many gases. Examples of gases are oxygen, carbon dioxide, hydrogen, nitrogen, etc.

Balloons

Air tube

Change Of States

States of matter can be changed from one form to another. A solid can change into a liquid on heating. On heating, a liquid becomes a gas. On cooling down, a gas becomes a liquid. When we freeze a liquid, it becomes solid. For example, on heating, ice changes into water (liquid), which on further heating, changes into Vapours.