CHEMISTRY

Changes Around Us

Changes occur all around us. When one or more properties of a thing become different, we say that it has changed or a change has taken place in it.

Types of Changes

Reversible Changes

Changes which are easily reversed to obtain the original form by removing the cause of change are called reversible changes. Melting, boiling, evaporating and condensing are examples of reversible changes.
Examples:

1. Pulling of a rubberband
2. Folding ofpaper

Melting and boiling

When a solid turns into a liquid, it is called melting. When a liquid becomes a gas, it is called boiling. Melting and boiling are examples of a reversible change.
Example: If an ice cube melts, the water can be frozen back to ice again by lowering the temperature. Steam from evaporated boiling water will condense back to water when the temperature falls.

Evaporation and Condensation

Evaporation is the process of a substance in the liquid form transitioning into the gas phase. Condensation is when a gas returns to the liquid form.
Example: With the heat of the Sun, water in the sea evaporates and turns into water vapour. Water vapour in the air gets cold and changes back into liquid, forming clouds. This occurs because of condensation.

Expansion

Expansion on heating is a reversible change. On heating, the size of the object generally increases. However, this change is a reversible change.
Example: Fixing of an iron rim to the wooden wheel of a cart

Non-reversible Changes

Changes in a substance which cannot be converted back to its original form are called non-reversible changes.
Example:
Rusting of iron

Heating

Heating results in an irreversible change.
Example: Egg which is cooked by heating cannot be changed back to a raw egg again.

Burning

Burning results in an irreversible change.
Example: When you burn wood, you get ash and smoke. We cannot change the ash and smoke back to wood again.