

## Different forms of Matter

### 1. Matter Can Change Its State

Matter can change its form with a change in temperature.

These changes are often reversible, meaning you can get back the original form.

### 2. Changes in the State of Matter

When heat is added or removed, matter changes its state:

#### i. Melting

- o Process: Solid → Liquid
- o When you heat a solid, it melts and turns into a liquid.

##### **Example:**

Ice melts into water when heated.

Butter melts when heated.

#### ii. Boiling (Evaporation)

- o Process: Liquid → Gas
- o When you heat a liquid, it boils and turns into a gas.

##### **Example:**

Water boils and becomes steam.

Milk boils and produces vapors.

#### iii. Freezing

- o Process: Liquid → Solid
- o When you cool a liquid, it freezes and turns into a solid.

##### **Example:**

Water freezes into ice.

Juice freezes into an ice pop.

#### iv. Condensation

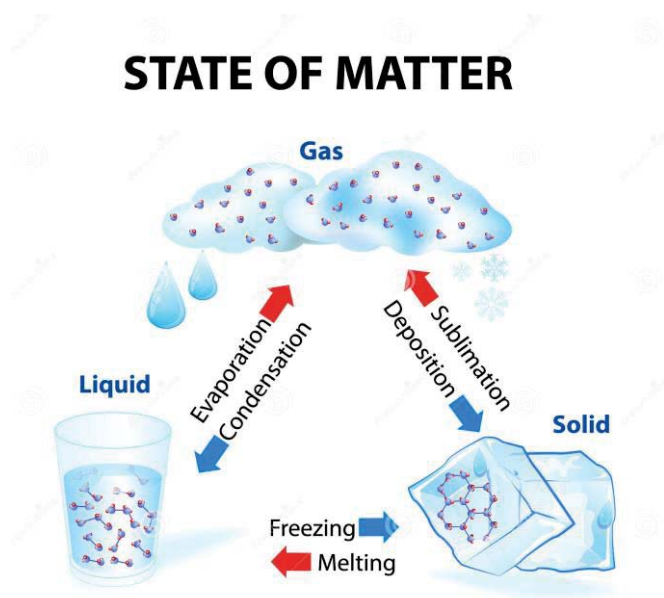
- o Process: Gas → Liquid
- o When you cool a gas, it condenses and turns into a liquid.

### Example:

Steam condenses into water droplets on a cold surface.

Fog forms due to condensation of water vapor.

### 3. Diagram: Changes in the State of Matter



### 4. Examples of State Changes in Daily Life

Change	Process	Example
<b>Melting</b>	Solid → Liquid	Ice cube melting into water.
<b>Freezing</b>	Liquid → Solid	Water freezing into ice.
<b>Boiling</b>	Liquid → Gas	Water boiling into steam.
<b>Condensation</b>	Gas → Liquid	Steam condensing on a cold glass.