



Physical Properties of Water

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Water Has a Fixed Volume. Water does not have a fixed shape but it has a fixed volume. It takes the shape of the container it is poured into, but the volume remains the same.

Example:

- If you pour 1 liter of water from a bottle into a jug, it still remains 1 liter.
- The shape changes, but the volume stays the same.

Water Occupies Space

Water is a form of matter, so it has:

i. Mass (weight)

ii. Takes up space

Example:

- When you fill a balloon with water, it inflates.
- This shows that water occupies space.

Water Flows Easily

Water is a fluid and can flow from: Higher level → Lower level. It takes the shape of the container it is in. When the container is full, water overflows.

Example:

- When you pour water from a jug into a glass, it flows smoothly.
- Rivers and streams flow from mountains (higher level) to plains (lower level).

Water Can Change Its Form

Water changes its form when heated or cooled:

i. Solid → Liquid (Melting)

- Ice melts into water when heated.

ii. Liquid → Gas (Boiling/Evaporation)

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- Water turns into steam when boiled.

iii. Gas → Liquid (Condensation)

- Steam cools down and turns into water droplets.

iv. Liquid → Solid (Freezing)

- Water freezes into ice when cooled.

Conclusion

Water takes the shape of its container but has a fixed volume. It occupies space and has mass. Water can change forms (solid, liquid, gas).

