

Pointers: Experiment with water.

Key words

Float

Sink

Colourless

Transparent

Soluble

Insoluble

Solution

Solvent

Miscible

Immiscible

Evaporation

1. Properties of Water:

- Water is a **liquid**.
- It **flows** and takes the shape of the container.
- Water is **colorless** and **transparent**.
- It has **no smell** and **no taste**.

2. Soluble and Insoluble Substances:

- Some substances dissolve in water (e.g., sugar, salt) — these are **soluble**.
- Some substances do not dissolve in water (e.g., sand, chalk powder) — these are **insoluble**.

3. Solvent, Solute, and Solution:

- **Solvent:** The substance that dissolves another substance (water is a solvent).
- **Solute:** The substance that dissolves (like sugar or salt).
- **Solution:** The mixture of solute dissolved in solvent (sugar dissolved in water).

4. Mixing of liquids.

- Water can mix with some liquids (e.g., alcohol) — called **miscible** liquids.
- Some liquids do not mix and form layers (e.g., oil and water) — called **immiscible** liquids.

5. Floating and Sinking:

- Objects can **float** or **sink** in water depending on their **density**.
- Less dense objects float; denser objects sink.

6. Evaporation:

- Water changes from liquid to gas (vapour) when heated — called **evaporation**.
- Evaporation helps in water cycle and drying clothes.

Real-life Application:

- Salt water from seas makes people float easily (Dead Sea example).

Evaporation is used to separate salt from salty water

