

CLASS 8

SCIENCE

REVISION NOTES

Revision Notes for Class 8 Science Chapter 9: The Amazing World of Solutes, Solvents and Solutions

Condensed revision notes for Class 8 Science Chapter 9: The Amazing World of Solutes, Solvents and Solutions - Curiosity textbook.

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Solution: a uniform (homogeneous) mixture of two or more substances, where solute particles are too small to see and don't settle over time.

Solute: the substance present in a smaller amount, dissolved in the solvent (e.g. salt, sugar, or a gas like O_2 in air/water).

Solvent: the substance present in a larger amount that does the dissolving (e.g. water, or nitrogen in air).

Suspension (non-uniform mixture): particles don't dissolve and settle over time (e.g. sand in water, muddy water) — this is NOT a solution.

Solubility: the maximum amount of solute that can dissolve in a fixed amount of solvent at a given temperature.

Saturated solution: holds the maximum possible dissolved solute at that temperature — no more will dissolve without raising the temperature.

Unsaturated solution: can still dissolve more solute at that temperature.

Effect of temperature on solubility: solids — solubility usually *increases* with temperature; gases — solubility *decreases* as temperature rises.

Mass: measured with a digital/beam balance; found by difference (container+object minus empty container).

Volume of regular solids: $\text{Volume} = \text{length} \times \text{width} \times \text{height}$.

Volume of irregular solids: water-displacement method — rise in water level (mL) = object's volume (cm^3), since $1 \text{ mL} = 1 \text{ cm}^3$.

Meniscus reading rule: colourless liquids — read the bottom of the meniscus; coloured liquids — read the top; keep eye level with the liquid surface.

Density = $\text{Mass} \div \text{Volume}$ (units: g/cm^3 or kg/m^3).

Density and floating: an object floats if its density is less than the liquid's density, and sinks if greater.

Effective density: trapped air pockets (e.g. in an orange peel) can lower an object's overall density below water's, letting it float even though the solid material itself is denser.

Effect of temperature on density: heating a liquid usually expands it (volume up, mass constant), so density decreases; cooling has the opposite effect.

Reshaping a solid (without adding/removing material or trapping air) does not change its mass or volume, so its density stays the same.

More on this chapter: [Solutions](#) | [Extra Questions](#) | [Class 8 Science Book](#) | [Formulas/Concepts Handbook](#)

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