

CLASS 9

SCIENCE

REVISION NOTES

Revision Notes: Class 9 Science Chapter 1 Matter in Our Surroundings (Legacy Chapter, Old Syllabus)

NCERT Solutions | Extra Questions (HOTS) | Class 9 Science Book

Contents

Class 9 Science Chapter 1 – Matter in Our Surroundings: Quick Revision Notes

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Matter: anything with mass that occupies space; made of tiny particles

Particle characteristics: have space between them, are in continuous random motion, attract each other

Three states: solid (fixed shape+volume, strongest force), liquid (fixed volume, takes container's shape, moderate force), gas (no fixed shape/volume, weakest force)

Interconversion: fusion/melting (solid→liquid), vaporisation (liquid→gas), condensation (gas→liquid), solidification (liquid→solid), sublimation (solid→gas), deposition (gas→solid)

Melting point: temperature at which solid→liquid at atmospheric pressure; **boiling point:** temperature at which liquid→gas at atmospheric pressure

Latent heat: heat absorbed/released during a change of state without a temperature change — used to overcome intermolecular forces

Temperature conversion: $K = ^\circ C + 273$; $^\circ C = K - 273$

Evaporation: surface phenomenon, happens below boiling point; increases with temperature, surface area, wind speed; decreases with humidity; causes cooling

Pressure and temperature both affect state: increasing pressure and decreasing temperature both favour a more condensed state (liquid/solid)

Ice is less dense than water due to its open hydrogen-bonded lattice structure — an exception to the usual solid > liquid density rule