

CLASS 8

SCIENCE

REVISION NOTES

Revision Notes: Class 8 Science Chapter 7 Particulate Nature of Matter

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Class 8 Science Chapter 7: Particulate Nature of Matter — Quick Revision Notes

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Matter is made of tiny particles (atoms/molecules), each far too small to see individually, even under an ordinary microscope.

Breaking or grinding a substance is usually a physical change — particles get smaller, but every speck remains the same substance.

Solids: particles closely packed in fixed positions, only vibrating in place; fixed shape and fixed volume.

Liquids: particles close together but free to move and slide past each other; fixed volume, but take the shape of their container.

Gases: particles far apart, moving fast and randomly; no fixed shape or fixed volume.

Interparticle attraction: strongest in solids, weaker in liquids, weakest in gases — this explains why gases mix/diffuse easily and solids do not.

Dissolving (e.g. sugar in water): a physical process where solute particles fit into the spaces between solvent particles; this differs from a substance like sand, whose rigid particle structure doesn't break down, so it simply settles instead.

Sublimation: a solid changes directly into a gas (or vice versa) without passing through the liquid state — e.g. camphor, dry ice.

If all particles were removed from an object, nothing of it — its structure, shape, or mass — would remain, since particles are what the object is made of.

Diffusion: the spontaneous spreading of one substance's particles through another (like a smell filling a room) — fastest in gases due to their weak interparticle forces and high particle speed.