

CLASS 9

SCIENCE

REVISION NOTES

Class 9 Science Chapter 8 Journey Inside the Atom – Revision Notes

Quick revision notes for Class 9 Science Chapter 8 (Journey Inside the Atom). These Class 9 Science Chapter 8 notes are ideal for quick revision just before exams.

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Subatomic Particles

Proton (+, nucleus), Neutron (neutral, nucleus), Electron (–, orbits nucleus).

Atomic Models

Thomson: plum pudding (uniform + charge, electrons embedded).

Rutherford: dense central nucleus, electrons orbit in empty space (gold foil experiment).

Bohr: electrons in fixed energy shells (K, L, M, N...), no energy radiated in orbit.

Shell Filling

Max electrons per shell: $2n^2 \rightarrow K=2, L=8, M=18$ (8 as outermost up to $Z=18$), $N=32$.

Key Definitions

Atomic number (Z) = protons = electrons (neutral atom).

Mass number (A) = protons + neutrons.

Isotopes: same element, different mass number.

Isobars: different elements, same mass number.

Valency: combining capacity, based on valence (outermost shell) electrons.

One-Line Summary

Atomic models evolved from Thomson's plum pudding to Rutherford's nuclear model to Bohr's shell model, and atoms are identified/compared using atomic number, mass number, isotopes, isobars, and valency based on electron shell arrangement.

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