

CHEMISTRY SYLLABUS– CLASS 7 (ICSE)

NEP-Aligned

MID TERM 1 (April – June)

April

Ch 1: Matter and Its Composition

- Understand matter and its characteristics
- Differentiate elements, compounds, mixtures
- Classify matter
- Observation skills

May

Ch 2: Physical and Chemical Changes

- Distinguish physical vs chemical changes
- Identify indicators
- Analytical thinking
- Real-life applications

June

Revision

- Concept reinforcement
- Application and critical thinking

HALF YEARLY ASSESSMENT (July – September)

July

Revision + Intro

- Strengthen concepts
- Real-life application

Ch 3: Elements, Compounds and Mixtures

- Classification skills
- Separation techniques
- Problem-solving

August

Ch 4: Atomic Structure

- Atomic structure basics

- Scientific thinking
- Model interpretation

September

Revision work to be done

Practise drawing skills

HOTS questions like for example -

1. An element has atomic number 12. Without naming the element, predict:

Number of protons, electrons, and neutrons (assume mass number = 24)

Its electronic configuration

Whether it is likely to be reactive or not. Justify your answer.

2. Analytical Thinking-

Compare two atoms:

Atom A: 2, 8, 1

Atom B: 2, 8, 7

Which atom is more likely to lose electrons and why? What type of ions will they form?

MID TERM 2 (October)

October

Ch 5: Language of Chemistry

- Chemical symbols & formulae
- Valency
- Logical reasoning

Analytical skills of comparing between two atoms based on valency

Problem solving skills like balancing chemical equations.

FINAL TERM (November – February)

November

Ch 4 Reinforcement

- Application of atomic concepts

December

Ch 6: Metals and Non-Metals

- Compare properties
- Real-life uses

January

Ch 7: Air and Atmosphere

- Composition of air
- Environmental awareness

Reasoning and observation skills of properties of different gases and their uses

February

Revision

- Critical thinking
- Problem solving

-**LOTS** (Lower Order Thinking Skills) – Recall & Basic Understanding

Define valency.

What is a chemical formula?

What do you mean by a radical?

State the valency of: Sodium, Oxygen, Chlorine

-**MOTS** (Middle Order Thinking Skills) – Application & Understanding

Write chemical formulae for:

Magnesium chloride

Aluminium oxide

-**HOTS** (Higher Order Thinking Skills) – Analysis, Reasoning & Critical Thinking

If the valency of element X is 3 and Y is 2, derive the formula of their compound and justify the method used.