

SUBJECT : CHEMISTRY
CLASS - IX

Text Book : Science and Technology (NCERT)

Month	UNIT/TOPI C	LEARNING OBJECTIVES	PRACTICAL/ACTIVITY	LEARNING OUTCOMES
APRIL- JULY	Is matter Around us Pure	<ul style="list-style-type: none"> ➤ To know about elements, compounds, and mixtures ➤ To know the types of mixtures ➤ To define solution and its types ➤ To compare the properties of Solution 	<p>To prepare</p> <p>(a) a mixture b) compound using ion fillings, sulphur powder c) distinguish on basis of:</p> <p>Appearance i.e. homogeneity and Heterogeneity. Behaviour towards Magnets. Behaviour towards carbon sulphide as solvent. Effect of heat.</p>	<p>Students will be able to-</p> <ul style="list-style-type: none"> ➤ Identify elements, compounds, and mixtures. ➤ Identify types of mixtures ➤ Compare types of solution on basis of its features.

AUGUST	Is matter Around us Pure	<ul style="list-style-type: none"> ➤ To understand properties of colloidal solution, suspension, and true solution ➤ Physical and chemical changes 	<p>Preparing sugar/ salt solution and starch solution.</p> <p>Compare properties on basis of – Transparency, filterability, Tyndal effect and stability</p> <p>Prepare solutions like chalk solution,</p>	<p>Student will be able to understand the different observable properties of solutions.</p> <p>To compare the features of different solutions like</p> <ul style="list-style-type: none"> • transparency, • filterability, • Tyndall effect
SEPTEMBER	Is matter Around us Pure	<ul style="list-style-type: none"> ➤ Laws of chemical combination ➤ I and II law ➤ Atom, Molecule, Compound ➤ Atomic and Molecular mass 	<p>To carry out the following reactions and observe physical chemical changes.</p> <p>(a) Iron with CuSO_4 solution in water, Of Mg in air, Zn with dil sulphuric acid Of CuSO_4, Sodium sulphate and Barium chloride</p>	<p>Students will be able to</p> <ul style="list-style-type: none"> ➤ Understand law of chemical combination and Daltons atomic theory ➤ Know atom and molecule
OCTOBER			Students will be able to understand the importance of mole as a	Students will be able to understand- Mole relation with particles

		MOLE CONCEPT & Relationship of mole to mass of the particles and numbers	grouping unit for atoms/molecules or ions in field of chemistry	Understand mole importance in the field of chemistry
NOVEMBER	Structure of Atom	<ul style="list-style-type: none"> ➤ Structure of an atom, Thomson model, Rutherford Model of an atom and its drawbacks, Bohr's Model of an atom 	Students will be able to Understand the different models proposed by chemists and their failures	ART INTEGRATED ACTIVITY/SUBJECT ENRICHMENT PROJECT SCHEMATIC DIAGRAM of atom in any two model forms (PPT)
DECEMBER	Structure of an Atom	<ul style="list-style-type: none"> ➤ Filling up of electrons in shells of atom ➤ Distribution of electrons in different orbits ➤ Valency, Atomic number, Mass number ➤ Isotopes and its applications 	Students will be able to <ul style="list-style-type: none"> ➤ Know the presence of electrons in each shell of K, L, M, N ➤ Define valency, atomic number and mass number Understand Isotopes and know about its application	Students will be able to understand <ul style="list-style-type: none"> ➤ Know the presence of electrons in each shell ➤ Define valency, atomic number, and mass number Understand Isotopes and know about its application
JANUARY/ FEBRUARY			REVISION/PRACTICAL EVALUATION ANNUAL EXAMINATION	

Theme: Materials Unit I: Matter- It's Nature and Behaviour Nature of matter: Elements, compounds and mixtures. Heterogeneous and homogeneous mixtures, colloids and suspensions. Particle nature and their basic units: Atoms and molecules, Law of constant proportions, Atomic and molecular masses. Mole concept: Relationship of mole to mass of the particles and numbers. Structure of atoms: Electrons, protons and neutrons, valency, chemical formula of common compounds. Isotopes and Isobars