

CHEMISTRY

MONTH	UNIT	TOPIC	SUB TOPIC	PRACTICALS
April	1	Matter in our surroundings	Physical nature of matter, characteristics of particles of matter (kinetic theory of matter), states of matter Change of states of matter (including explanation using kinetic theory), effect of pressure and impurities on m.p. of solids and b.p. of liquids, evaporation, factors affecting evaporation	To determine the m. pt. of ice and b. pt. of distilled water
May	1	Matter in our surroundings	Difference between evaporation and boiling, latent heat of fusion and latent heat of vapourisation, advantages of high latent heat of fusion of ice and high latent heat of vapourisation of water, cooling effect of evaporation and its applications, Heating and cooling curves.	
June	2	Is matter around us pure	Mixtures, types of mixtures (solid-solid, solid-liquid, liquid-liquid, liquid-gas, gas-gas), homogeneous and heterogeneous mixtures, daily life examples of mixtures and identifying the components of the mixtures	
Periodic Test- I				
July	2	Is matter around us pure	Solutions, properties of solutions, concentration of solutions, numericals on mass by mass % and mass by volume%, suspensions, properties of suspensions Colloids, properties of colloids, types of colloids, applications, separation of mixtures (include fractional crystallization for separation of solid-solid mixtures and the techniques to separate liquid-gas and gas-gas mixtures).	To study the properties of solutions, suspensions and colloids.
August	2	Is matter around us pure	Separation of mixtures (contd.), elements, types of elements (include metalloids and noble gases), compounds, types of compounds (preliminary idea about organic and inorganic compounds), physical and chemical changes.	To prepare and study a mixture and a compound of iron & sulphur.

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August	2			To separate the components of a mixture of sand, salt and NH_4Cl .
	3	Atoms and molecules	Laws of chemical combinations, Dalton's atomic theory, atomic size, symbols, atomic mass, a.m.u., molecules, atomicity, types, ions, radicals, chemical formulae, framing of formulae.	To verify law of conservation of mass
September	Revision & Periodic Test - 2			
October	3	Atoms and molecules	Molecular mass, formula unit mass, mole concept, numericals based on mole	To study the types of chemical reactions.
November	4	Structure of the atom	Charged particles in matter, discharge tube experiment, cathode ray experiment and canal ray experiment, structure of the atom, Thomson's model and its limitations, Rutherford's Gold foil experiment, Rutherford's model and its limitation, Bohr's model.	
Periodic Test - 3				
December	4	Structure of the atom	Neutrons, electronic distribution in atoms, atomic structure diagrams, valency, atomic number and mass number, isotopes, fractional atomic mass, isobars, isotones	
January	5	Natural resources	Introduction, air, the role of the atmosphere in climate control, winds, rain, air and water pollution, mineral riches in soil, soil pollution & erosion, sustainable practices.	
February	Revision & Annual examination (Entire syllabus)			