

S.D.Public School, Pitam Pura, New Delhi
Academic Planner
Session--(2024-25)
Class-XI
Subject--Chemistry

Date/ Day	Content	Modes of Assesment	Assignment / Class	Teaching Pedagogy	Interdisciplinary Aspect	Lab. Activity/ Practical
April (16-30)	Recapitulation of Basic concepts of X class	Recapitulation of previous concepts in the form of MCQ test		Students will be divided in pairs and assign a particular topic to explain in the class using previous knowledge.	Self Learning.	
11 Days	Some Basic Concepts of Chemistry :- Importance and scope of chemistry, Nature of matter, laws of chemical combinations, Dalton's atomic theory.	Class test.	Examples and Intext Questions discussion in the class.			
May (1-15) 12 Days	Mole concept, Atomic and Molecular mass					
May (16-25) 6 Days	Empirical and Molecular formula, Stoichiometry and calculations based on Stoichiometry.	Class test from numericals based on Molecular formula.	Assignment based on Numericals (Stoichiometry, Limiting reagent and molecular	Problem Based learning	Mathematical Learning.	
July (1-15)						
12 Days	Structure of Atom:- Discovery of electron, proton and neutron.	Case Based Question from Models.	Examples and Intext Questions			Weighing on the balance. (Skill Based learning)

	Bohr's model, concept of shells and subshells.			Flipped Classroom to optimize time in	Meeting the special needs of	
July (16-31)	Dual nature of matter and light, De Broglie relationship, shapes of s, p and d orbitals, Quantum Mechanics, Electronic configuration.	Assessment in the form of Quiz	Assignment based on Conceptual questions, graphs and mathematical data.	Problem Based Learning	Creative thinking and critical skill	Weighing on the balance. (Skill Based learning)
13 Days	Stability of half filled and completely filled orbitals.					
August (1-15)	Classification of elements:- Significance of classification, brief history of development of periodic table.					
11 Days	Modern Periodic law, periodic trends in the properties of elements, Nomenclature of elements with atomic number greater than 100.	Small worksheets of five-six questions (Knowledge and concept based) to assess the previous knowledge of students.	Assignment based on position of elements in the table	Assigning the position of elements in the periodic table knowing their atomic number (gaps will be there in the table)	Knowledge based and Skill Based learning.	Acid- Base titration
August (16-31)	Chemical Bonding and Molecular structure:- Ionic bond, Covalent bond, Bond parameters, Lewis structures, polar nature of covalent bond.	Class test from Ionic and covalent bond..		Group Discussion Activity (Cooperative learning)		

12 Days	Valence bond theory, VSEPR theory.		NCERT Examples and Intext questions discussion.	Learning the geometry of molecules with the help of self made 3-D models (using clay and ball-sticks)	Skill Based Learning	Acid-Based titration
September (1-15)	Concept of hybridisation, shapes of some simple molecules, Molecular orbital theory, Hydrogen bond.	Q/A technique	Assignment based on hybridisation and configuration.	3-D models for hybridisation concept.	Skill Based Learning	
11 Days	Chemical Thermodynamics:- Concept of system, surroundings, work, heat, energy, Extensive, Intensive properties, state functions, First law of thermodynamics, Internal energy, enthalpy, heat capacity.	Class Test based on Derivations.	Discussion of NCERT examples and Intext Que.	Problem Based learning	Concept based and Mathematical learning	Acid-Base titration
September (16-30)	Half Yearly Examination					
October (1-15)	Enthalpy of phase transition, combustion, atomization, formation, enthalpy of solution.		Assignment based on numericals from Enthalpy of formation		Mathematical learning	Acid-Base titration
8 Days	Second Law of thermodynamics, Entropy, Gibb's energy change, Criteria for equilibrium. Brief idea of third law of thermodynamics.	MCQ test(On Kahoot)	Assignment based on conceptual questions.			

October (16-31) 12 Days	Equilibrium:- In physical and chemical process, nature of dynamic equilibrium, law of mass action. Equilibrium constant, Le Chatellier's principle, Acid-Base concept, ionization of weak acid and base, degree of dissociation.	Class test(Chemical equilibrium)	Assignment based on Case based questions from Le Chatelier's principle and equilibrium constant.	Group Discussion Activity(Cooperative learning)	Learning Enhancement in group.	Preparation of Inorganic compound.(copper sulphate)
November (1-15)	Acid strength, polyprotic acids, concept of pH, Hydrolysis of salt, buffer solution, solubility product, common ion effect.	Class test from numericals				Preparation of Inorganic compound. (copper sulphate)
10 Days	Redox Reactions:- Concept of oxidation, reduction, Oxidation number concept, Types of Redox reactions.	Class test based on oxidation number.		Relevance of Redox reactions in day to day life.	Chemistry in everyday life.	Qualitative analysis
November (16-30) No. of Days - 13	Redox Reactions Balancing of Redox reactions, Applications of Redox reactions in chemistry.		Assignment based on Balancing of redox reaction.			Qualitative analysis(Acidic and Basic radical)
December (1-15) No. Of Days- 11	Organic Chemistry- Some Basic principles:- Classification of organic compounds, IUPAC nomenclature, Isomerism,	Q/A to check previous knowledge of students	Assignment based on IUPAC nomenclature.			
	Electron displacement effects, Homolytic and heterolytic cleavage. Method of Purification of Organic compounds, Qualitative and Quantitative analysis of organic compounds.					Qualitative analysis

December (16-31) NO. of Days- 13	Qualitative and Quantitative analysis of Organic compounds. Hydrocarbons:- Classification, Alkanes-Nomenclature, isomerism	Class test from Numerical Problems based on Qualitative and Quantitative analysis.	Assignment based on Quantitative analysis.		Mathematical aspect	
January 16-31) No. of Days-13	Preparation, physical and chemical properties of Alkanes, Alkenes, Alkynes. Nomenclature and Isomerism	Class test from Conversion reactions.		Problem Based Learning		Qualitative analysis
February (1-15)	Benzene :- Nomenclature, preparation, isomerism, physical and chemical properties.	Class test from Isomerism and nomenclature.	Assignment based on structure based problems.	Learning by doing.	Self learning	

Examination Schedule	
Unit Test-1	Some Basic concepts of chemistry
Term-1 Examination (Half Yearly Examination)	Some basic concepts of chemistry , Structure of atom, Classification of elements
Unit Test-2	Chemical Bonding, Thermodynamics
Term-2 Examination	Complete Syllabus