

St. Xavier's School

Syllabus and Lesson Planner



Class	IX			
Subject	CHEMISTRY			
<i>Syllabus</i>				
Ch. No.	Name of Chapter	Topic	Month	Week
1	THE LANGUAGE OF CHEMISTRY	Symbol of an element; valency; formula of radicals & formula of compounds	March	1
		Balancing of simple chemical equations.	April	2
		Relative Atomic Masses & Relative Molecular Masses.		
		Calculation of Relative Molecular Mass & percentage composition of a compound.		
2	CHEMICAL CHANGES AND REACTIONS	Types of chemical changes: Direct combination; Decomposition; Displacement; Double decomposition.	May	2
		Energy changes in a chemical change: Exothermic & endothermic reactions with examples.		
3	ATOMIC STRUCTURE AND CHEMICAL BONDING	Structure of an atom, mass number and atomic number, Isotopes and Octet Rule	June	2
		Electron distribution in the orbits - 2n ² rule. Reason for chemical activity of an atom.		
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		Electrovalent Bond: Atomic orbit structure for the formation of Electrovalent compounds (e.g. NaCl, MgCl ₂ , CaO).		
		Covalent Bond: Atomic orbit structure for the formation of Covalent molecules on the basis of duplet and octet of electrons.		
4	THE PERIODIC TABLE	Dobereiner's Triads, Newland law of Octaves, Mendeleev's contributions; Modern Periodic Law, the Modern Periodic Table. (Groups and periods)	July	3
		Special reference to Alkali metals, Alaline Earth metals, Halogens and Zero Group.		
5	WATER	Water as a universal solvent: Solutions as mixtures of solids in water, saturated solutions	Aug/s ept	2
		Qualitative effect of temperature on solubility.		
		Hydrated substances: Meaning & examples.		
		Anhydrous substances: Meaning & examples .		
		Properties: Efflorescence, Deliquescence, Hygroscopy Drying & Dehydrating agent - Meaning & examples only.		
	CHAPTERS 1 to 5	1ST SEMESTER Revision	Aug/ sept	2
6	STUDY OF THE FIRST ELEMENT HYDROGEN	Position of the non-metal (Hydrogen) in the P. T.	Sept	3
		General group characteristics.		
		Preparation of hydrogen by general methods.		
		Preparation of hydrogen by laboratory method.		
		Preparation of hydrogen by Bosch process.		
		Oxidation & reduction reactions.		
7	STUDY OF GAS LAWS	Behaviour and characteristics properties of gases.	Oct	3
		Explanation in terms of molecular motion.		
		Boyle's Law & Charles Law, absolute zero.		
		Gas equation, standard temperature & pressure.		
		Relationship between Kelvin & Celsius scale.		
8	Atmospheric Pollution	Acid rain - composition, cause & its impact.	Nov	2
		Global warming.		
		Ozone depletion.		