WEEKLY PLAN

Indian School Al Wadi Al Kabir - Syllabus break up for MARCH 2017 - CHEMISTRY

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| **Class** | **Week3**  **15-16** | **Week4**  **19-23** | **Week5**  **26-30** |
| CLASS XII | **Haloalkanes:** Nomenclature, nature of C–X bond, physical and chemical properties, mechanism of substitution reactions, optical rotation.  **Haloarenes:**  Nature of C–X bond, substitution reactions (Directive influence of halogen in monosubstituted compounds only). | Uses and environmental effects of - dichloromethane, trichloromethane, tetrachloromethane, iodoform, freons, DDT.  **Alcohols:** Nomenclature, methods of preparation, physical and chemical properties (of primary alcohols only), identification of primary, secondary and tertiary alcohols, mechanism of dehydration, uses with special reference to methanol and ethanol. | **Phenols:** Nomenclature, methods of preparation, physical and chemical properties, acidic nature of phenol, electrophillic substitution reactions, uses of phenols.  **Ethers:** Nomenclature, methods of preparation, physical and chemical properties, uses. |
| * **PRACTICAL:**  **Preparation for Investigatory projects.** | | | |

Syllabus break up for APRIL 2017

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| **Class** | **Week1**  2-6 | **Week2**  **9-13** | **Week3**  **16-20** | **Week4**  **23-27** |
| CLASS XII  CHEMISTRY | **Unit I: Solid State**  Classification of solids based on different binding forces: molecular, ionic, covalent and metallic solids, amorphous and crystalline solids (elementary idea). Unit cell in two dimensional and three dimensional lattices, calculation of density of unit cell.  Efficiency, voids, number of atoms per unit cell in a cubic unit cell, point defects, electrical and magnetic properties.  Band theory of metals, conductors, semiconductors and insulators and n and p type semiconductors. | **Unit II: Solutions**  Types of solutions, expression of concentration of solutions of solids in liquids, solubility of gases in liquids, solid solutions, colligative properties - relative lowering of vapour pressure Raoult's law, elevation of boiling point, depression of freezing point, osmotic pressure, determination of molecular masses using colligative properties, abnormal molecular mass, Van't Hoff factor. | **P block elements**  **Group -15 Elements:** General introduction, electronic configuration, occurrence, oxidation states, trends in physical and chemical properties; Nitrogen preparation properties and uses; compounds of Nitrogen, preparation and properties of Ammonia and Nitric Acid, | Oxides of Nitrogen(Structure only) ; Phosphorus - allotropic forms, compounds of Phosphorus: Preparation and Properties of Phosphine, Halides and Oxoacids (elementary idea only).  Group 16 Elements: General introduction, electronic configuration, oxidation states, occurrence, trends in physical and chemical properties, dioxygen: Preparation, Properties and uses, classification of Oxides, Ozone, |
| * **PRACTICAL: VOLUMETRIC ANALYSIS EXPT. 1 & 2 : KMnO4 Vs FAS / EXPT3 & 4 : KMnO4 Vs Oxalic acid** | | | | |

Syllabus break up for MAY 2017

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| **Class** | **Week 1**  30-4 | **Week 2**  7-11 | **Week 3**  **14-18** | **Week 4**  **21-25** |
| CLASS XII  CHEMISTRY | Sulphur -allotropic forms; compounds of Sulphur: Preparation Properties and uses of Sulphur-dioxide,  Sulphuric Acid: industrial process of manufacture, properties and uses; Oxoacids of Sulphur (Structures only). compounds,  **Group 17 Elements:** General introduction, electronic configuration, oxidation states, occurrence, trends in physical and chemical properties; compounds of halogens, Preparation, properties and uses of Chlorine and Hydrochloric acid, | interhalogen  Oxoacids of halogens (structures only). Group 18 Elements: General introduction, electronic configuration, occurrence, trends in physical and chemical properties, uses.Oxoacids of halogens (structures only).  **Group 18 Elements:** General introduction, electronic configuration, occurrence, trends in physical and chemical properties, uses. | **Unit VI: General Principles and Processes of Isolation of Elements**  Principles and methods of extraction - concentration, oxidation, reduction - electrolytic method and refining;  **UNIT TEST I** | occurrence and principles of extraction of aluminium, copper, zinc and iron.  **REVISION**  **UNIT TEST I** |
| * **PROJECT BASED** * Investigatory projects **Submission of Experiment**   **(written work)** | | | | |