WEEKLY PLAN

Indian School Al Wadi Al Kabir - Syllabus break up for MARCH 2016

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| **Class** | **Week3****14-17** | **Week4****20-24** | **Week5****28-31** |
| CLASS XIICHEMISTRYInstruction lessons4+5+4 | 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.**
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Syllabus break up for APRIL 2016

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| **Class** | **Week1**6-7 | **Week2****10-14** | **Week3****17-21** | **Week4****24-28** |
| CLASS XIICHEMISTRYInstruction lessons2+5+5+5 | Aldehydes and Ketones: Nomenclature, nature of carbonyl group, methods of preparation, physical and chemical properties,  | mechanism of nucleophilic addition, reactivity of alpha hydrogen in aldehydes: uses. | Carboxylic Acids: Nomenclature, acidic nature, methods of preparation, physical and chemical properties; uses.Amines: Nomenclature, classification, structure, methods of preparation, physical and chemical properties, uses, identification of primary, secondary and tertiary amines. Cyanides and Isocyanides - will be mentioned at relevant places in text. | Diazonium salts: Preparation, chemical reactions and importance in synthetic organic chemistry. |
| * **PRACTICAL: VOLUMETRIC ANALYSIS EXPT. 1 & 2 : KMnO4 Vs FAS / EXPT3 & 4 : KMnO4 Vs Oxalic acid**
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Syllabus break up for MAY 2016

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| **Class** | **Week 1**1-5 | **Week 2****8-12** | **Week 3****15-19** | **Week 4****22-26** | **Week 5****29-31** |
| CLASS XIICHEMISTRYInstruction lessons5+5+5+5+3 | 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, 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, Oxoacids of halogens (structures only). Group 18 Elements: General introduction, electronic configuration, occurrence, trends in physical and chemical properties, uses. | 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. | General introduction, electronic configuration, occurrence and characteristics of transition metals, general trends in properties of the first row transition metals - metallic character, 135 ionization enthalpy, oxidation states, ionic radii, colour, catalytic property, magnetic properties, interstitial compounds, alloy formation, preparation and properties of K2Cr2O7 and KMnO4.  | Lanthanoids - Electronic configuration, oxidation states, chemical reactivity and lanthanoid contraction and its consequences Actinoids - Electronic configuration, oxidation states and comparison with lanthanoids. |
| * **PRACTICAL : PROJECT BASED** Investigatory projects
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Syllabus break up for June 2016

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| **Class** | **Week1**1–2 | **Week2****5-6** | **Week3** | **Week4** |
| CLASS XIICHEMISTRY | Coordination compounds - Introduction, ligands, coordination number, colour, magnetic properties and shapes,  | IUPAC nomenclature of mononuclear coordination compounds. Bonding, Werner's theory, VBT, and CFT; (To be contd…after summer vacation)structure and stereoisomerism, importance of coordination compounds (in qualitative inclusion, extraction of metals and biological system). | **SUMMER BREAK** | **SUMMER BREAK** |
| * PRACTICAL:  **Submission of projects**
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