Indian School Al Wadi Al Kabir - Syllabus break up for

**AUGUST - 2019**

**chemistry**

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| CLASS XII | WEEK 1 | WEEK 2 | WEEK 3 | WEEK 4 | WEEK 5 |
| CHEMISTRY | July 31st & August 1st(Two days) | 4th to 8th (Five days) | 11th to 14th (Four days)  | 18th to 22nd (Five days) | 25th to 29th (Five days) |
| **JULY AND AUGUST** | **CHAPTER 15****Polymers**Copolymerization, some important polymers:  | Natural and synthetic like polythene, Nylon polyesters, Bakelite, rubber, Biodegradable and Non-biodegradablePolymers.**CHAPTER 14****Biomolecules**Carbohydrates - Classification (aldoses and ketoses), mono saccahrides (glucoseand fructose), D-L configuration  |  Oligosaccharides (sucrose, lactose, maltose),Polysaccharides (starch, cellulose, glycogen); Importance of carbohydrates. Proteins -Elementary idea of - amino acids, peptide bond, polypeptides, proteins,structure of proteins - (Qualitative idea only), | Denaturation of proteins; enzymes. Hormones -Excluding structure.Vitamins - Classification and functions.Nucleic Acids: DNA and RNA. Halogen in mono substituted compounds only). | **CHAPTER 7****p -Block Elements**Group 16 Elements: General introduction, electronic configuration, oxidation states, 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: manufacture, properties and uses; Oxoacids of Sulphur (Structures only). |
| LAB TOPICS**: Submission of Investigatory projects.** **Core Experiments – EXPT 5 & 6: Paper Chromatography and Preparation of Ferric hydroxide sol.** |

Indian School Al Wadi Al Kabir - Syllabus break up for

**SEPTEMBER - 2019**

**chemistry**

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| **CLASS 12** | **WEEK 1** | **WEEK 2** | **WEEK 3** | **WEEK 4** | **WEEK 5** |
| CHEMISTRY | **1st to 5th****(Five days)** | **8th to 12th****(Five days)** | **15th to 19th****(Five days)** | **22nd to 26th****(Five days)** | **29th & 30th** **(Two days)** |
| **SEPTEMBER** | Group 17 Elements: General introduction, electronic configuration, oxidationstates, trends in physical and chemical properties; compounds ofhalogens, Preparation, properties and uses of Chlorine and HCl,Inter halogen compounds, Oxoacids of halogens (structures only). | Group 18 Elements: General introduction, electronic configuration, occurrence,Trends in physical and chemical properties, uses. | **ASSESSMENT I** | **ASSESSMENT I** | **CHAPTER 8****‘d’ and ‘f’ Block Elements**General introduction, electronic configuration, occurrence and characteristics oftransition metals, general trends in properties of the first row transition metals - metallic character, ionization enthalpy, oxidation states, ionic radii, colour,catalytic property, magnetic properties, interstitial compounds, alloy formation |
| **LAB TOPICS:**  **Core Experiments – EXPT 7 & 8: Test for Functional groups and Test for Protein and Carbohydrate.**  |

Indian School Al Wadi Al Kabir - Syllabus break up for

**OCTOBER - 2019**

**chemistry**

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| **CLASS 12** | **WEEK 1** | **WEEK 2** | **WEEK 3** | **WEEK 4** | **WEEK 5** |
| CHEMISTRY | **1st to 3rd** **(Three days)** | **6th to 10th** **(Five days)** | **13th to 17th** **(Five days)** | **20th & 24th** **(Five days)** | **27th & 31st** **(Five days)** |
| **OCTOBER** | Preparation and properties of K2Cr2O7 and KMnO4.Lanthanoids - Electronic configuration, oxidation states chemical reactivity andlanthanoid contraction and its consequences.Actinoids - Electronic configuration, oxidation states and comparison with lanthanoids | **CHAPTER 2****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 colligativeProperties, abnormal molecular mass, Van't Hoff factor. | **CHAPTER 3****ELECTROCHEMISTRY**Redox reactions, conductance in electrolytic solutions, specific and molar conductivity, variations of conductivity with concentration, Kohlrausch's Law,electrolysis and law of electrolysis (elementary idea), dry cell-electrolytic cells and Galvanic cells, lead accumulator, EMF of a cell, standard electrode potential, Nernst equation and its application to chemical cells, Relation between Gibbs energy change and EMF of a cell, fuel cells, corrosion. | **CHAPTER 4****CHEMICAL KINETICS**Rate of a reaction (Average and instantaneous), factors affecting rate of reaction: concentration, temperature, catalyst; order and molecularity of a reaction, rate lawand specific rate constant, integrated rate equations and half-life (only for zero andfirst order reactions),  | Concept of collision theory (elementary idea, no mathematicaltreatment). Activation energy, Arrhenius equation.**CHAPTER 6****General Principles and Processes of Isolation of Elements**Occurrence and principles of extraction ofaluminium, copper, zinc and iron |
| * **LAB TOPICS:**

**EXPT: 9, 10, 11 & 12: SALT NO. 1,2,3 & 4** |

Indian School Al Wadi Al Kabir - Syllabus break up for

**november - 2019**

**chemistry**

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| CLASS XII | WEEK 1 | WEEK 2 | WEEK 3 | WEEK 4 |
| CHEMISTRY | **3rd to 7th** (Five days) | 10th to 14th (Five days) | 17th to 21st (Five days)  | 24th to 28th (Five days) |
| **NOVEMBER**  | Principles and methods of extraction - concentration, oxidation, reduction electrolytic method and refining;**CHAPTER 9****Coordination Compounds**Introduction, ligands, coordination number, colour,magnetic properties and shapes, IUPAC nomenclature of mononuclearcoordination compounds.  | Bonding, Werner's theory, VBT, and CFT; structure and stereoisomerism, importance of coordination compounds | **REVISION** | **REHERSAL 1** |
| LAB TOPICS**:** **EXPT: 13, 14, 15 & 16: SALT NO. 5, 6, 7 & 8** |

School Al Wadi Al Kabir - Syllabus break up for

**DECEMBER - 2019**

**chemistry**

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| CLASS XII | WEEK 1 | WEEK 2 | WEEK 3 | WEEK 4 | WEEK 5 |
| CHEMISTRY | 1st to 5th (Five days) | 8th to 12th (Five days) | 15th to 19th (Five days)  | 22nd to 26th (Five days) | 29th to 31st (Three days) |
| **DECEMBER** | **REHERSAL 1** | **REVISION** | **REVISION** | **WINTER VACATION** | **WINTER VACATION** |
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Indian School Al Wadi Al Kabir - Syllabus break up for

**JANUARY - 2020**

**chemistry**

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| CLASS XII | WEEK 1 | WEEK 2 | WEEK 3 | WEEK 4 | WEEK 5 |
| CHEMISTRY | 1st to 7th  | 8th & 9th (Two days) | 12th to 16th (Five days)  | 19th to 23rd (Five days) | 26th to 30th (Five days) |
| **JANUARY** | **WINTER VACATION** | **REHERSAL 2** | **REHERSAL 2** | **REHERSAL 2****MOCK PRACTICAL** | **MOCK PRACTICAL** |
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Indian School Al Wadi Al Kabir – Syllabus break up for

**FEBRUARY – 2020**

**chemistry**

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| CLASS XII | WEEK 1 | WEEK 2 | WEEK 3 | WEEK 4 |
| CHEMISTRY | 2nd to 6th (Five days) | 9th to 13th (Five days) | 16th to 20th (Five days)  | 23rd to 27th (Five days) |
| **FEBRUARY** | **BOARD PRACTICAL EXAMS** | **BOARD PRACTICAL EXAMS****REVISION** | **REVISION** | **REVISION** |
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Indian School Al Wadi Al Kabir - Syllabus break up for

**march - 2020**

**chemistry**

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| CLASS XII | WEEK 1 | WEEK 2 | WEEK 3 | WEEK 4 | WEEK 5 |
| CHEMISTRY |  |  |  |  |  |
| **MARCH** | **BOARD EXAMINATIONS - THEORY** |
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Prepared by: Mr. ANOOP STEPHEN CHECKED BY : HOD - SCIENCE