WEEKLY PLAN

Indian School Al Wadi Al Kabir - Syllabus break up for APRIL 2015

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| **Class** | **Week1**  6-9 | **Week2**  **12-16** | **Week3**  **19-23** | **Week4**  **26-30** |
| CLASS XI  CHEMISTRY | **Some Basic Concepts of Chemistry**:   * General Introduction: Importance and scope of chemistry. * Nature of matter, laws of chemical combination * Dalton's atomic theory: * Atomic and molecular masses, mole concept and molar mass. * Percentage composition, empirical and molecular formula | * Stoichiometry and calculations based on stoichiometry. * PRACTICAL: Introduction to lab procedure, Salt Analysis; Preliminary tests   **Structure of Atom**   * Bohr's model and its limitations | * Concept of shells and subshells, dual nature of matter and light, de Broglie's relationship, * Heisenberg uncertainty principle * Concept of orbitals, quantum numbers, shapes of s, p and d orbitals * Aufbau principle, Pauli's exclusion principle and Hund's rule. * PRACTICAL: Detection of anions and cations | Electronic configuration of atoms, stability of half filled and completely filled orbitals.  **Classification of Elements and Periodicity in Properties**   * Significance of classification, brief history of the development of periodic table, modern periodic   UNIT TEST I |

Syllabus break up for MAY 2015

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| **Class** | **Week1**  3-7 | **Week2**  **10-14** | **Week3**  **17-21** | **Week4**  **24-28** |
| CLASS XI  CHEMISTRY | * Periodic trends in properties of elements –atomic radii. * Ionic radii, inert gas radii Ionization enthalpy, electron gain enthalpy, electronegativity. * PRACTICAL: SALT I | * Valency, Nomenclature of elements with atomic number greater than 100.   **Chemical Bonding and Molecular structure**   * Valence electrons, ionic bond, covalent bond; bond parameters, Lewis structure | * Polar character of covalent bond, covalent character of ionic bond, valence bond theory, resonance, geometry of covalent molecules * VSEPR theory, concept of hybridization, involving s,p and d orbitals * PRACTICAL: SALT II | * Shapes of some simple molecules, molecular orbital theory of homonuclear diatomic molecules, hydrogen bond.   **Hydrogen**   * Position of hydrogen in periodic table, occurrence, isotopes, preparation, properties and uses of Hydrogen. * Hydrides-ionic covalent and interstitial. |

Syllabus break up for June 2015

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| **Class** | **Week1**  May 31st – 4th June | **Week2**  **7-11** | **Week3** | **Week4** |
| CLASS XI  CHEMISTRY | * Physical and chemical properties of water, Heavy water.   PRACTICAL: SALT III   * **ASSESSMENT I** | * , hydrogen peroxide -preparation, reactions and structure and use. Hydrogen as a fuel.   **Environmental Chemistry – PROJECT**  **SUMMER VACATION** |  |  |