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

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| **Class** | **Week1**  6-7 | **Week2**  **10-14** | **Week3**  **17-21** | **Week4**  **24-28** |
| 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, empiricaland molecular formula Stoichiometry and calculations based on stoichiometry.   **Structure of Atom**   * Bohr's model and its limitations * PRACTICAL: Introduction to lab procedure, Salt Analysis; Preliminary tests | * 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 |

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 XI  CHEMISTRY | * Periodic trends in properties of elements –atomicradii. * 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 characterof covalent bond, covalent character of ionic bond, valence bond theory, resonance, geometryof covalent molecules * VSEPR theory, concept of hybridization, involving s,p and d orbitals * PRACTICAL: SALT II   UNIT TEST I | * Shapes of some simple molecules, molecular orbital theory of homonuclear diatomic molecules, hydrogen bond.   UNIT TEST I | **Hydrogen**   * Position of hydrogen in periodic table, occurrence, isotopes, preparation, properties and uses ofHydrogen. * Hydrides-ionic covalent and interstitial. * PRACTICAL: SALT III |

Syllabus break up for June 2016

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| **Class** | **Week1**  1–2 | **Week2**  **5-6** | **Week3** | **Week4** |
| CLASS XI  CHEMISTRY | * Physical and chemical properties of water, Heavy water. | * Hydrogen peroxide -preparation, reactions and structure and use. Hydrogen as afuel.   **Environmental Chemistry – PROJECT** | **SUMMER**  **BREAK** | **SUMMER**  **BREAK** |