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
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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 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
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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** |