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.
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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** |  |  |