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| **Indian School Al Wadi Al Kabir - Syllabus break up for 2014-15** | | | | |
| Class 11  physics | Week1 | Week2 | Week3 | Week4 |
| **APRIL** | Physical World and Measurement Physics - scope and excitement; nature of physical laws; Physics, technology and society. | Need for measurement: Units of measurement; systems of units; SI units, fundamental and derivedunits.  Length, mass and time measurements; accuracy and precision of measuring instruments;  PRACTICAL: Cycle I | Errors in measurement; significant figures. Dimensions of physical quantities, dimensional analysis and its applications.  Frame of reference, Motion in a straight line:  PRACTICAL: Cycle I | Position-time graph, speed and velocity. Elementary concepts of differentiation and intergration for describing motion.  Uniform and non-uniform motion, average speed and instantaneous velocity.  PRACTICAL: Cycle I |
| **MAY** | Uniformly Relations for uniformly accelerated motion (graphical treatment) Scalar and vector quantities; Position and displacement vectors, general vectors and theirnotations;  Equality of vectors, multiplication of vectors by a real number; addition and subtractionof vectors. Relative velocity.  PRACTICAL: Cycle I | Unit vector; Resolution of a vector in a plane - rectangular components Scalar and Vector product of vectors.  Motion in a plane. Cases of uniform velocity and uniform acceleration-projectile motion  PRACTICAL: Cycle I | Uniform circular motion Laws of Motion Intuitive concept of force. Inertia,  Newton’s first law of motion; momentum and Newton’s second law of motion; impulse;  PRACTICAL: Cycle I | Newton’s third law of motion. Law of conservation of linear momentum and its applications.  Equilibrium of concurrent forces. Static and kinetic friction, laws of friction, rolling friction,lubrication |
| **JUNE** | Dynamics of uniform circular motion: Centripetal force, examples of circular motion (vehicle on a level circular road, vehicle on banked road).  **ASSESSMENT I** | **ASSESSMENT I** | - | - |