Subject	Physics		
	Interpretation of National Curriculum into Year group Endpoints		
Year	**Term 1**	**Term 2**	**Term 3**
12	Students will describe and explain the concepts of: **(Section 1 is Measurements and errors that are taught throughout the duration of the course)** **2. Particles and Radiation** Constituents of the atom Stable and unstable nuclei Particles, antiparticles and photons Particle interactions Classification of particles Quarks and anti-quarks Photoelectric effect Energy levels and photon emission Wave-particle duality **4. Mechanics and materials** Scalars and vectors Moments Equations of linear accelerated motion Newtons laws of motion *g* by freefall Required Practical Momentum Work, energy and power Bulk properties of solids Youngs modulus Youngs modulus required practical	Students will describe and explain the concepts of: **3. Waves** Progressive, longitudinal and transverse waves Superposition and stationary waves Standing Waves required practical Interference Youngs double slit experiment Diffraction Refraction **5. Electricity** Basics of electricity I-V characteristics Resistivity Resistivity of a wire Circuits Potential divider E.M.F and internal resistance Investigating the EMF and internal resistance of cells and batteries	Students will describe and explain the concepts of: **6. Further mechanics** **6.1 Circular motion and Periodic Motion** Simple Harmonic motion Simple Harmonic systems Simple Harmonic Oscillators Required Practical Forced vibrations and resonance **6.2 Thermal physics** Thermal energy transfer Ideal gases Molecular kinetic theory