



SIR GRAHAM BALFOUR SCHOOL

CURRICULUM OVERVIEW – KEY STAGE 5 PHYSICS



	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 12	<p>Measurement and Errors</p> <p>Use of SI units and Prefixes</p> <p>Limitations of Physical Measurements</p> <p>Estimation of physical quantities</p> <p>Particle Physics</p> <p>Constituents of the atom</p> <p>Stable and unstable nuclei</p> <p>Particles and antiparticles</p> <p>Particle Interactions</p> <p>Classification of particles</p> <p>Quarks and antiquarks</p> <p>Application of conservation laws</p> <p>Electricity</p> <p>Basics of electricity</p> <p>Current-voltage characteristics</p> <p>Resistivity</p> <p>Circuits</p> <p>Potential divider</p> <p>Electromotive force and internal resistance</p>	<p>Quantum</p> <p>The photoelectric effect</p> <p>Collisions of electrons with atoms</p> <p>Energy levels and photon emissions</p> <p>Wave-particle duality</p> <p>Materials</p> <p>Bulk properties of solids</p> <p>The Young Modulus</p> <p>Mechanics</p> <p>Scalars and vectors</p> <p>Moments</p> <p>Force, energy and momentum</p> <p>Motion along a straight line</p> <p>Projectile Motion</p> <p>Newtons Law of Motion</p> <p>Momentum</p> <p>Work, energy and power</p>	<p>Waves</p> <p>Progressive waves</p> <p>Longitudinal and transverse waves</p> <p>Principles of superposition</p> <p>Stationary waves</p> <p>Interference, diffraction and refraction</p> <p>Further Mechanics</p> <p>Circular motion</p> <p>Simple harmonic motion and systems</p> <p>Resonance</p>			
Year 13	<p>Fields</p> <p>Gravitational fields</p> <p>Newtons Law</p> <p>Gravitational field strength</p> <p>Gravitational potential</p> <p>Orbits of planets and satellites</p> <p>Electric fields</p> <p>Coulomb's Law</p> <p>Electric field strength</p> <p>Electric potential</p> <p>Magnetic Fields</p> <p>Magnetic flux density</p> <p>Moving charges in magnetic fields</p>	<p>Astrophysics</p> <p>Telescopes</p> <p>Classification of stars</p> <p>Cosmology</p> <p>Thermal Physics</p> <p>Thermal energy transfer</p> <p>Ideal gases</p> <p>Molecular kinetic theory</p>	<h1>Revision</h1>			