Subject: **KS5 Physics**		Year Group: **12**
Term 1 Key Focus/Topic(s) **Mechanics** • Basic measurements and units • Motion graphs • Suvat equations • Newton's Laws • Projectile motion	Term 2 Key Focus/Topic(s) **Electric Circuits** • Current and Resistance • Circuits • Potential Dividers • EMF • Resistivity	Term 3 Key Focus/Topic(s) **Materials** • Stoke's Law • Hooke's Law • Young's Modulus
Term 1 Assessment Opportunities: • Classwork in tutorial lessons. • Homework. • Core Practical 1: Determine the acceleration of a freely-falling object	Term 2 Assessment Opportunities: • Classwork in tutorial lessons. • Homework. • Core practical 3: Determine the e.m.f. and internal resistance of an electrical cell. • Core Practical 2: Determine the electrical resistivity of a material	Term 3 Assessment Opportunities: • Classwork in tutorial lessons. • Homework. • Core Practical 4: Use a falling-ball method to determine the viscosity of a liquid. • Core Practical 5: Determine the Young modulus of a material.
Term 4 Key Focus/Topic(s) **Waves & Particle Nature** • Standing waves • Interference • Diffraction • Reflection and Refraction • Lenses • Photoelectric Effect	Term 5 Key Focus/Topic(s) **Revision and Internal Exam** • Comprehensive review of units 1 to 4.	Term 6 Key Focus/Topic(s) **Thermodynamics** • Gas Laws • Kinetic Theory. • Specific & Latent Heat
Term 4 Assessment Opportunities: • Classwork in tutorial lessons. • Homework. • Core Practical 6: Determine the speed of sound in air using a 2-beam oscilloscope, signal generator, speaker and microphone. • Core Practical 7: Investigate the effects of length, tension and mass per unit length on the frequency of a vibrating string or wire. • Core Practical 8: Determine the wavelength of light from a laser or other light source using a diffraction grating.	Term 5 Assessment Opportunities: • Exam Results	Term 6 Assessment Opportunities: • Classwork in tutorial lessons. • Homework. Core Practical 14: Investigate the relationship between pressure and volume of a gas at fixed temperature. Core Practical 12: Calibrate a thermistor in a potential divider circuit as a thermostat. Core Practical 13: Determine the specific latent heat of a phase change.

Long-term overview for Year 12 Physics