

Yr 12	Aut 1	Aut 2	Spring 1	Spring 2	Summer 1	Summer 2
	Force Energy and Momentum	Force Energy and Momentum	Materials	Periodic motion 1	Periodic motion 2	
	3.4.1.1 Vectors and Scalars	3.4.1.5 Newton's laws of motion	3.4.2.1 Bulk properties of solids	3.6.1.1 Circular motion	3.6.1.2 Simple harmonic motion	
	3.4.1.2 Moments	3.4.1.6 Momentum	3.4.2.2 The Young modulus		3.6.1.3 Simple harmonic systems	
	3.4.1.3 Motion along a straight line	3.4.1.7 Work, energy and power			3.6.1.4 Forced vibrations and resonance	
	3.4.1.4 Projectile motion	3.4.1.8 Conservation of energy	Required practical 4: Determination of the Young modulus by a simple method	Consolidation lesson	Required practical 7: Investigation into simple harmonic motion using a mass-spring system and a simple pendulum	
	Consolidation lesson	Consolidation Lesson	Consolidating lesson	Test 3.6.1.1		
	Test 3.4.1 (1st part)	Test 3.4.1 (2nd part)	Test 3.4.2			
	Required practical 3: Determination of g by a freefall method.					
	P2. Particles and Radiation	P2. Particles and Radiation P3. Waves	P3. Waves	P5. Electricity	P5. Electricity	
	-P2.1 Constituents of the atom	-P2.8 The photoelectric effect	-P3.3 Principle of superposition of waves and formation of stationary waves	-P5.1 Basics of Electricity	-P5.4 Circuits	
	-P2.2 Stable and unstable nuclei	-P2.9 Collisions of electrons with atoms	TEST 3.1 - 3.3	-P5.2 Current-voltage characteristics	-P5.5 Potential divider	
	-P2.3 Particles, anti-particles and photons	-P2.10 Energy levels and photon emission	-P3.4 Interference	-P5.3 Resistivity	-P5.6 Electromotive force and internal resistance	
	-P2.4 Particle interactions	-P2.11 Wave-particle duality	-P3.5 Diffraction		TEST 5.1 - 5.6	
	-P2.5 Classification of particles	TEST 2.8 - 2.11	-P3.6 Reflection at a plane surface	Consolidating lesson	Consolidating lesson	
	-P2.6 Quarks and anti-quarks	-P3.1 Progressive waves	TEST 3.4 - 3.6	RP 5 Determination of the resistivity of a wire using a micrometer screw gauge, ammeter and voltmeter.	RP 6 Investigation of emf and internal resistance of electric cells and batteries by measuring the variation of the terminal pd of the cell with current in it.	
	-P2.7 Applications of conservation laws	-P3.2 Longitudinal and transverse waves	RP 2 Investigation of interference in Young's slit experiment and diffraction by a diffraction grating.			
	TEST 2.1 - 2.7	RP 1 Investigation into the variation of the frequency of stationary waves on a string (or wire) with length, tension, and mass per unit length of string.	Consolidating lesson			

Teacher 1: RIV

Teacher 2: JMO

Aut 1	Aut 2	Spring 1	Spring 2	Summer 1/2
Finishing off SHM and consolidation	3.7.3.1 Coulomb's law	EXAM		
Required practical 7: Investigation into simple harmonic motion using a mass-spring system and a simple pendulum.	3.7.3.2 Electric field strength	3.7.5.5 Alternating currents		
Test on periodic motion	3.7.3.3 Electric potential	3.7.5.6 The operation of a transformer		
3.7.2.1 Newton's law (A-level only)	3.7.4.1 Capacitance	Required practical 10: Investigate how the force on a wire varies with flux density, current and length of wire using a top pan balance.		
3.7.2.2 Gravitational field strength	3.7.4.2 Parallel plate capacitor	Required practical 11: Investigate, using a search coil and oscilloscope, the effect on magnetic flux linkage of varying the angle between a search coil and magnetic field direction.		
3.7.2.3 Gravitational potential	3.7.4.3 Energy stored by a capacitor	3.12 Turning points in physics		
3.7.2.4 Orbits of planets and satellites	3.7.4.4 Capacitor charge and discharge	3.12.1.1 Cathode rays		
	3.7.5.1 Magnetic flux density	3.12.1.2 Thermionic emission of electrons		
	3.7.5.2 Moving charges in a magnetic field (3.12.1.3 Specific charge of the electron		
	3.7.5.3 Magnetic flux and flux linkage	3.12.1.4 Principle of Millikan's determination of the electronic charge,		
	3.7.5.4 Electromagnetic induction			
Consolidation Lesson	Consolidating lesson			
Test 3.7.2	Test 3.7.3/3.7.4/3.7.5			
PPE exams (Early oct)	Required practical 9: Investigation of the charge and discharge of capacitors.			
3.8 Nuclear physics	3.8.1.6 Mass and energy	EXAM		
3.8.1.1 Rutherford scattering	PPE exams (Early oct)		3.12.3.1 The Michelson-Morley experiment	
3.8.1.2 α , β and γ radiation	3.8.1.7 Induced fission		3.12.3.2 Einstein's theory of special relativity	
3.8.1.3 Radioactive decay	3.8.1.8 Safety aspects		3.12.3.3 Time dilation	
3.8.1.4 Nuclear instability	Required practical 12: Investigation of the inverse-square law for gamma radiation.		3.12.3.4 Length contraction	
3.8.1.5 Nuclear radius	TEST 3.8		3.12.3.5 Mass and energy	
Test 3.6.2		3.12 Turning points in physics		
PPE exams (Early oct)	3.6.2 Thermal physics	3.12.2.1 Newton's corpuscular theory of light		
Consolidating lesson	3.6.2.1 Thermal energy transfer	3.12.2.2 Significance of Young's double slits experiment		
	3.6.2.2 Ideal gases	3.12.2.3 Electromagnetic waves (A-level only)		
	3.6.2.3 Molecular kinetic theory model	3.12.2.4 The discovery of photoelectricity		
	RP 8: Investigation of Boyle's law (constant temperature) and Charles's law (constant pressure) for a gas.	3.12.2.5 Wave-particle duality		
		3.12.2.6 Electron microscopes		
		TEST 3.12		