Physics
Year 12 curriculum map

Year 12	T1	T2	T3	T4	T5	T6
Content / Topic for Term	Waves	Optics	Forces and equilibrium	On the move	Newton's Laws Forces and momentum	Forces and momentum (cont) Work, energy and power
Key Knowledge for acquisition, recall and application in assessment or exam	Waves • nature of waves • polarisation • measuring waves • phase difference • superposition • stationary waves	Optics • reflection and refraction • refractive index • total internal reflection • optical fibres • interference • diffraction gratings • spectra	Forces and equilibrium • scalars and vectors • resolving vectors • balanced forces • moments • stability • equilibrium	On the move • speed and velocity • acceleration • SUVAT • freefall • acceleration due to gravity • motion graphs • projectiles	Newton's laws • F=ma • terminal velocity • vehicle safety Forces and momentum • momentum and impulse • impact forces • conservation of momentum	Forces and momentum (cont) • elastic, inelastic collisions and explosions Work, energy and power • work and power • kinetic and potential • efficiency • energy resources
Key skills to apply in assessment or exam	• Using key scientific terminology • Explaining • Describing • Exam style questions • Complex scientific ideas	• Using key scientific terminology • Respond to written questions • Articulating complex scientific ideas	• Using key scientific terminology • Explaining observations • Respond to written questions • Identifying equipment	• Using key scientific terminology • Explaining observations • Respond to written questions • Identifying equipment	• Using key scientific terminology • Respond to written questions • Presentations of information • Understanding models	• Using key scientific terminology • Explaining • Describing • Exam style questions • Calculations (Maths)

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	• Calculations (maths)	• Calculations (maths) • Explaining • Describing	• Conclusion • Evaluation • Graphs • Calculations (Maths)	• Conclusion • Evaluation • Graphs • Calculations (Maths)	• Articulating complex scientific ideas • Calculations (Maths)	
Title of Knowledge Organiser	Waves	Optics	Forces and equilibrium	On the move	Newton's Laws Forces and momentum	Forces and momentum (cont) Work, energy and power

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