Years 12 & 13 Curriculum
A Level: Physics

Year 12

	Autumn Term		Spring Term		Summer Term	
Topic	**Forces & Motion**	**Electricity**	**Work, Energy & Power**	**Waves**	**Quantum Physics**	**Newtonian World**
Key Concepts	• Scalars & vectors • Kinematics • Linear motion • Projectile motion • Dynamics • Motion with non-uniform acceleration • Equilibrium • Density & pressure	• Charge and current • Mean drift velocity • Circuit symbols • e.m.f. and p.d. • Resistance • Resistivity • Power • Series & parallel circuits • Internal resistance • Potential dividers	• Work and conservation of energy • Kinetic and potential energies • Power • Springs • Mechanical properties of matter • Newton's laws of motion • Collisions	• Wave motion • Superposition • Stationary waves • Electromagnetic waves	• Photons • The photoelectric effect • Wave-particle duality	• Thermal Physics • Circular motion • Oscillations

Year 13

	Autumn Term		Spring Term		Summer Term	
Topic	**Astrophysics and Fields**	**Particles**	**Fields**	**Medical physics**	**Revision**	
Key Concepts	• Ideal Gases • Stars • Cosmology • Electric fields	• Gravitational Fields • Particle physics • Radioactivity • Nuclear physics	• Capacitance • Magnetic fields • Revision	• Medical imaging • Revision	• Revision	

Years 12 & 13 Assessment
A Level: Physics

All students will sit an assessment and a mock examination in Year 12 and two mock examinations in Year 13.

	Year 12		Year 13		
	Assessment	**Mock Exam**	**Mock Exam**	**Mock Exam**	**Revision Resources**
	Autumn Term	**Summer Term**	**Autumn Term**	**Spring Term**	
Style of Assessment	A mixture of short, long answer and multiple-choice questions	A mixture of short, long answer and multiple-choice questions	A mixture of short, long answer and multiple-choice questions	A mixture of short, long answer and multiple-choice questions	*Kennet Resources* • Core Questions • Knowledge Organisers • Learning Habits *External Resources* • www.physicsandmathstutor.com • www.kerboodle.com You can also find additional revision material on Frog
Topics Assessed	• Foundations of physics	• Forces and Motion • Electricity • Energy, Work and Power • Waves • Quantum Physics	• Forces & Motion • Electricity • Work, Energy & Power • Waves • Quantum Physics	• Forces & Motion • Electricity • Work, Energy & Power • Waves • Quantum Physics • Circular Motion • Oscillations • Thermal Physics and Ideal Gases • Gravitational Fields • Electric Fields • Capacitors • Magnetic Fields • Astrophysics • Particles • Nuclear Physics • Radioactivity • Medical Physics	

Exam Board: OCR Oxford Cambridge and RSA

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