



Year 11: Physics

Curriculum Intent: in year 11 combined science Physics the aim is to build on students' knowledge learned from year 7-10 to being able to apply this knowledge. Exam skills will be taught through recapping the knowledge the students have developed in the following topics:

- Matter
- Forces
- Electricity and Magnetism
- Waves and Radioactivity
- Energy
- Global Challenges

	Topic 1 Matter	Topic 2 Forces	Topic 3 Electricity and Magnetism	Topic 4 Waves and Radioactivity	Topic 5 Energy	Topic 6 Global Challenges
Key ideas	<ul style="list-style-type: none"> • The particle model • Model of the atom • Changes of state • Specific heat capacity • Specific latent heat 	<ul style="list-style-type: none"> • Motion • Vectors, scalars, velocity • Acceleration • Newton's laws • Momentum • Work and power • Stretching springs 	<ul style="list-style-type: none"> • Static and charge • Simple circuits • Ohm's law • Magnets and magnetic fields • Motors 	<ul style="list-style-type: none"> • Wave behaviour • The electromagnetic spectrum • Radioactive emissions • Alpha, beta and gamma radiation • Nuclear equations • Half-life 	<ul style="list-style-type: none"> • Work done • Energy analysis • Power and efficiency • Paying for electricity • Insulation 	<ul style="list-style-type: none"> • Physics on the move • Everyday motion • Stopping distance • Powering Earth • Energy resources • The national grid • Mains electricity
Sequence of Learning - Key Questions	All questions will be covered from years 7-10 topics					
Vocabulary	All vocabulary will be covered from years 7-10 topics					
Practical Skills	All practical skills will be recapped from years 7 – 10 topics					

Assessment (Related to mastery grids)	AO1 - Tassomai AO2 – applying knowledge – exam style questions	AO1 - Tassomai AO2 – applying knowledge – exam style questions	AO1 - Tassomai AO2 – applying knowledge – exam style questions	AO1 - Tassomai AO2 – applying knowledge – exam style questions	AO1 - Tassomai AO2 – applying knowledge – exam style questions	AO1 - Tassomai AO2 – applying knowledge – exam style questions
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