

Long Term Planning - **Physics**
Curriculum Overview

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Year Group	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Year 9	Energy	Energy (Heating)	Energy Resources	Radiation	Particle Model of Physics	Electricity
Skill(s)	Scientific thinking Experimental skills and strategies Analysis and evaluation Scientific vocabulary Apparatus and techniques	Scientific thinking Experimental skills and strategies Analysis and evaluation Scientific vocabulary Apparatus and techniques	Scientific thinking Experimental skills and strategies Ethics and debates Analysis and evaluation Scientific vocabulary Apparatus and techniques	Scientific thinking Experimental skills and strategies Analysis and evaluation Scientific vocabulary Apparatus and techniques	Scientific thinking Experimental skills and strategies Analysis and evaluation Scientific vocabulary Apparatus and techniques	Scientific thinking Experimental skills and strategies Analysis and evaluation Scientific vocabulary Apparatus and techniques
PD/T&E	Life beyond school - futures	Life beyond school - futures	Life beyond school - futures	Health and wellbeing - dangers of radiation	Life beyond school - futures	Health and wellbeing - dangers of electricity
Futures	Energy engineer, doctor, nuclear chemist	Energy assessor, energy engineer, plumber	Energy engineer, energy conservation officer, environmental consultant	Radiation technologist, nuclear physicist	Particle physicist, researcher, technician, engineer	Electrician, electrical engineer, systems developer
Year 10	Electricity and Circuits	Electricity in the Home	Forces and Motion 1	Forces and Motion 2	Waves	The Electromagnetic Spectrum

Skill(s)	Scientific thinking Experimental skills and strategies Analysis and evaluation Scientific investigative skills Use a range of mathematical skills to perform scientific calculations Apparatus and techniques	Scientific thinking Experimental skills and strategies Analysis and evaluation Scientific investigative skills Use a range of mathematical skills to perform scientific calculations Apparatus and techniques	Scientific thinking Experimental skills and strategies Analysis and evaluation Scientific investigative skills Use a range of mathematical skills to perform scientific calculations Apparatus and techniques	Scientific thinking Experimental skills and strategies Analysis and evaluation Scientific investigative skills Use a range of mathematical skills to perform scientific calculations Apparatus and techniques	Scientific thinking Experimental skills and strategies Analysis and evaluation Scientific investigative skills Use a range of mathematical skills to perform scientific calculations Apparatus and techniques	Scientific thinking Experimental skills and strategies Analysis and evaluation Scientific investigative skills Use a range of mathematical skills to perform scientific calculations Apparatus and techniques
PD/T&E	Life beyond school - futures Rights, Responsibilities and British Values (effective use of evidence) Celebrating diversity and Equality - challenging stereotypes regarding success in physics	Life beyond school - futures Rights, Responsibilities and British Values (effective use of evidence) Celebrating diversity and Equality - challenging stereotypes regarding success in physics	Life beyond school - futures Rights, Responsibilities and British Values (effective use of evidence) Celebrating diversity and Equality - challenging stereotypes regarding success in physics	Life beyond school - futures Rights, Responsibilities and British Values (effective use of evidence) Celebrating diversity and Equality - challenging stereotypes regarding success in physics	Life beyond school - futures Rights, Responsibilities and British Values (effective use of evidence) Celebrating diversity and Equality - challenging stereotypes regarding success in physics	Life beyond school - futures Rights, Responsibilities and British Values (effective use of evidence) Celebrating diversity and Equality - challenging stereotypes regarding success in physics
Futures	Electrical Engineer Electrician	Electrical Engineer Electrician	Structural Engineer Civil Engineer	Structural Engineer Civil Engineer	Audiologist Geophysicist	Radiographer Physician

	Automotive engineering Energy Management Renewable Energy Engineer	Building Services	Automotive Engineer Royal Air Force Armed Forces Engineer	Automotive Engineer Royal Air Force Armed Forces Engineer	Radiographer Physician Nuclear Medicine Technologist Diagnostic Medical Sonographer MRI Technologist	Nuclear Medicine Technologist Diagnostic Medical Sonographer
Year 11	Electromagnetic spectrum	Magnetism and electromagnetism	Bespoke intervention and revision based on QLA of mocks	Bespoke intervention and revision based on QLA of mocks	Bespoke intervention and revision based on QLA of mocks	
Skill(s)	Scientific thinking Experimental skills and strategies Analysis and evaluation Scientific vocabulary Apparatus and techniques	Scientific thinking Experimental skills and strategies Analysis and evaluation Scientific vocabulary Apparatus and techniques	Effective revision and exam techniques Manage time, learn independently and use ICT effectively	Effective revision and exam techniques Manage time, learn independently and use ICT effectively	Effective revision and exam techniques Manage time, learn independently and use ICT effectively	
PD/T&E	Health and wellbeing - cancer treatments		Life beyond school - futures	Life beyond school - futures	Life beyond school - futures	
Futures	Radiologist, communications engineer	Motor control engineer, magnet engineer				

Year 12	Units and taking measurements Progressive and stationary waves Refraction, diffraction and inference	Refraction, diffraction and inference Particles and radiation	Electromagnetic radiation and quantum phenomena Scalars and vectors Moments	Force, energy and momentum Materials	Basics of electricity Resistivity	Current electricity Exam Revision and Recap of units 1-5
Skill(s)	Independent thinking Use and application of scientific methods Numeracy and the application of mathematical concepts in a practical context Instruments and equipment	Independent thinking Use and application of scientific methods Numeracy and the application of mathematical concepts in a practical context Instruments and equipment	Independent thinking Use and application of scientific methods Numeracy and the application of mathematical concepts in a practical context Instruments and equipment	Independent thinking Use and application of scientific methods Numeracy and the application of mathematical concepts in a practical context Instruments and equipment	Independent thinking Use and application of scientific methods Numeracy and the application of mathematical concepts in a practical context Instruments and equipment	Independent thinking Use and application of scientific methods Numeracy and the application of mathematical concepts in a practical context Instruments and equipment
PD/T&E	Life beyond school - futures	Life beyond school - futures	Life beyond school - futures	Life beyond school - futures	Life beyond school - futures	Life beyond school - futures
Futures	Building control officer, lens specialist, sound engineer technician	Nuclear physicist, particle physicist, radiologist	Quantum physicist, mechanical engineer	Vehicle safety specialist, civil engineer	Electrical engineer, research physicist	Electronics engineer, cardiovascular technologist