



Holy Family
Catholic High School
Year 9

Curriculum and Assessment Progression Map

Subject: Physics

Subject Leader D Wilde

Key Learning Constructs to be developed over the academic year. – Core Knowledge	Scheme of Learning Autumn Term	Scheme of Learning Spring Term	Scheme of Learning Summer Term
<p>*The concept of energy emerged in the 19th century. The idea was used to explain the work output of steam engines and then generalised to understand other heat engines. It also became a key tool for understanding chemical reactions and biological systems. Limits to the use of fossil fuels and global warming are critical problems for this century. Physicists and engineers are working hard to identify ways to reduce our energy usage.</p> <p>*Electric charge is a fundamental property of matter everywhere. Understanding the difference in the microstructure of conductors, semiconductors and insulators makes it possible to design components and build electric circuits. Many circuits are powered with mains electricity, but portable electrical devices must use batteries of some kind. Electrical power fills the modern world with artificial light and sound, information and entertainment, remote sensing and control. The fundamentals of electromagnetism were worked out by scientists of the 19th century. However, power stations, like all machines, have a limited lifetime. If we all AQA GCSE Physics 8463. GCSE exams June 2018 onwards. Version 1.1 30 September 2019 Visit aqa.org.uk/8463 for the most up-to-date specification, resources, support and administration 23 continue to demand more electricity this means building new power stations in every generation – but what mix of power stations can promise a sustainable future?</p>	<p>Part 1 National and Global Energy Resources Energy 1</p> <p>Part 2 Energy 2</p>	<p>Part 3 Electricity 1</p> <p>Part 4 Electricity 2</p>	<p>Part 5 Particle Model 1</p> <p>Part 6 Particle Model 2</p>
Hinterland Knowledge	Real examples of the APPLICATION of the content studied (eg Drax Power Station as a local example of electricity generation)	Real examples of the APPLICATION of the content studied (eg how specific electrical devices work)	Real examples of the APPLICATION of the content studied (eg density in everyday life)
<p>Assessment: -Formative Techniques</p> <p>-Summative Pieces</p>	Use of whiteboards, hinge questions, recall questions.		
	End of Topic Tests	End of Topic Tests	End of Topic Tests and End of Year Assessment

Key Vocabulary	Key scientific terminology appropriate to each topic studied	Key scientific terminology appropriate to each topic studied	Key scientific terminology appropriate to each topic studied
Key Skills	Working Scientifically, relevant mathematical techniques (percentages, mean, mode, median etc) Graph plotting skills. Understanding variables and anomalies and their causes and effects	Working Scientifically, relevant mathematical techniques (percentages, mean, mode, median etc) Graph plotting skills. Understanding variables and anomalies and their causes and effects	Working Scientifically, relevant mathematical techniques (percentages, mean, mode, median etc) Graph plotting skills. Understanding variables and anomalies and their causes and effects
Opportunities Outside the taught Curriculum.	Careers, STEAM enrichment activities, educational visits	Careers, STEAM enrichment activities, educational visits	Careers, STEAM enrichment activities, educational visits