

Year 9 Fundamental Ideas (Physics - AQA)

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topics	P1 Electricity Series and Parallel circuits, power of appliances, National Grid	P1 continued	P2 Particle Model Motion in gases, density of materials, internal energy and changes of state, specific latent heat	P2 continued	P3 Atomic Structure Model of the atom, isotopes, radiation, nuclear equations, half-life, irradiation and contamination	P3 continued
Assessment	Homework and exam questions.	End of unit synoptic test	Homework and exam questions.	End of unit synoptic test	Homework and exam questions.	End of unit synoptic test. End of year PPE

Building on Prior Learning	Students will have an understanding of some of these subject areas from KS3 for example energy and electromagnetism but it is largely new material. Learning components at the start of lessons remind students of prior learning and point out links to prior topics.
Links with other subjects	Maths - basic mathematical functions, algebra, plotting graphs, standard form, rearranging equations. Tabulating and analysing data Geography - Energy resources.
Extracurricular opportunities	Future plan to bring in STEM ambassadors to engage and inspire students.
A successful learner in this subject will demonstrate	Students are required to memorise key facts and be able to recall them, and to apply their knowledge to real life situations. A successful student will be able to link concepts together. Demonstrate the ability to work scientifically by following a method, identifying basic apparatus, collecting data, illustrating data and drawing conclusions.
Impact on personal development	Science will help students to become logical thinkers and problem solvers with a better understanding of the world around them. Demonstrating resilience and the ability to consider moral and ethical implications of scientific developments.

Ways to support student learning in this subject
<ul style="list-style-type: none"> • Encourage the completion of homework • Encourage discussions of science issues that arise in the news • Discuss science lessons and their progress • Encourage a positive attitude towards science • Equations sheet and personalised learning checklists (PLC) • Encourage students to use Seneca Learning (https://www.senecalearning.com/) to consolidate knowledge and build on recall skills. • Use of low stakes questioning and exam material to build confidence and knowledge base • Solid grounding in units, unit conversions, standard form and rearranging equations and encouragement in the use of maths skills



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