

National curriculum or specification coverage

AQA Physics Specification**6.2 Electricity**

- 6.2.1 Current, potential difference and resistance
- 6.2.2 Series and parallel circuits
- 6.2.3 Domestic uses and safety
- 6.2.4 Energy transfers – power & energy in everyday appliances

6.3 Particle model of matter

- 6.3.1 Changes of state and the particle model
- 6.3.2 Internal energy and energy transfers
- 6.3.3 Particle model and pressure

6.4 Atomic structure

- 6.4.1 Atoms and isotopes
- 6.4.2 Atoms and nuclear radiation

6.5 Forces

- 6.5.1 Forces and their interactions
- 6.5.1.2 Contact and non-contact forces
- 6.5.1.4 Resultant forces
- 6.5.4 Forces and motion
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Date	Exams/ Assessments	Learning Intentions	Core Task/Assessments
31/08/26		P4 (6.2.1) - Electricity - draw and interpret circuit diagrams. - Electric current is a flow of electrical charge. The size of the electric current is the rate of flow of electrical charge. Charge flow, current and time are linked by the equation. - The current (I) through a component depends on both the resistance (R) of the component and the potential difference (V) across the component. - Required practical activity 15: use circuit diagrams to set up and check appropriate circuits to investigate the factors affecting the resistance of electrical circuits. This should include: - the length of a wire at constant temperature - combinations of resistors in series and parallel. - Required practical activity 16: use circuit diagrams to construct appropriate circuits to investigate the I-V characteristics of a variety of circuit elements, including a filament lamp, a diode and a resistor at constant temperature. - describe the difference between series and parallel circuits - explain qualitatively why adding resistors in series increases the total resistance whilst adding resistors in parallel decreases the total resistance P5.1 - 6.2.3 - Explain the difference between direct and alternating potential difference. - Explain how the national grid works, including the use of step up and step down transformers	
07/09/26			
14/09/26			
21/09/26			
28/09/26			
05/10/26			
12/10/26			
19/10/26			
26/10/26	HALF TERM		
02/11/26		P6 (6.3) - Define density - Investigate density of regular and irregular solids and liquids.	P6 – Core Task
09/11/26			
16/11/26	Y10		
23/11/26	Y10		
30/11/26		Assessment feedback and DIRT P6 (6.3) - Describe the 3 states of matter – solid, liquid, gas, including their particle arrangemnet. - State the processes for changing state - Define internal energy - Explain how the components of internal energy vary throughout the process of changing state, with reference to a temperature – time graph	
07/12/26			
14/12/26			

Year 10 Long Term Scheme of Learning 2026-2027

Subject: Physics – Separate Science

		- Define specific latent heat - Know when to use specific latent heat of vaporisation - Use the equation $E=ml$			
21/12/26	CHRISTMAS HOLIDAY				
28/12/26					
04/01/27		P7 (6.4) - Know the structure of an atom, including the charges. - Identify and describe key developments during the discovery of the nucleus - Know what alpha, beta and gamma radiation is made up of. - Know how far they travel in air, how ionising they are and how each of them can be stopped. - Write decay equations for alpha, beta and gamma - Define half-life - Calculate half-life of a substance, using a graph. - Explain how nuclear radiation uses within medicine - Define and describe the process of nuclear fission - Define and describe the process of nuclear fusion - Discuss and debate the issues associated with nuclear.	P7 – Core Task		
11/01/27					
18/01/27					
25/01/27					
01/02/27					
08/02/27					
15/02/27	HALF TERM				
22/02/27		P8 (6.5) - Define scalar and vector quantities - Quantify a quantity as scalar or vector - State the unit of force - Identify forces acting on an object - Calculate the resultant force in a horizontal or vertical plane - Investigate how to find the centre of mass of an object. - Describe moments about a pivot point, including with gears and levers. - Calculate moments about a pivot point - Draw a scale drawing to calculate resultant force of non-perpendicular forces.	P8 – Core Task		
01/03/27					
08/03/27					
15/03/27					
22/03/27					
29/03/27	SPRING BREAK				
05/04/27					
12/04/27	Y10		P9 – Core Task		
19/04/27	Y10				
26/04/27		Assessment feedback and DIRT			
03/05/27		P9 (6.5) - Motion - Draw and interpret distance – time graphs - Draw and interpret speed – time graphs - Calculate the gradient of a graph - Calculate the area under a graph			
10/05/27					
17/05/27					
24/05/27					

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		- Describe what is happening to the motion using motion graphs.	
31/05/27	HALF TERM		
07/06/27		P10 (6.5) - Investigate the relationship between force and acceleration. - Apply the equation $W=mg$ to calculate weight with varying values for g. - State the conditions required for terminal velocity. - Apply knowledge of factors which can affect terminal velocity - Describe a situation where an object may reach terminal velocity. - Know how to calculate stopping distance, with examples of key distances. - Know why we have key safety features on vehicles and how they help to reduce impact. - Calculate the speed and forces required when breaking - Calculate momentum using $p=mv$ (HT only) - Investigate the relationship between force and elasticity and plot a graph.	P10 – Core Task
14/06/27			
21/06/27			
28/06/27			
05/07/27			
12/07/27			