THE ABBEY SCHOOL
A BUSINESS & ENTERPRISE ACADEMY

Subject: Physics

Year 11
Scheme of Learning 2025-2026

Subject leader: Mr S Brock

Topics by term	Topic overview for Year 9					
	Term 1	**Term 2**	**Term 3**	**Term 4**	**Term 5**	**Term 6**
Topics taught	**Physics** – P5a; force basics	**Physics** – P5b; forces and elasticity MOCKS	**Physics** – P5c; forces and motion MOCKS	**Physics** – P5c; forces and motion P5d; Car safety and momentum	**Physics** – P5d; Car safety and momentum Revision for GCSE examinations GCSE paper 1 examination	**Physics** – GCSE paper 2 examination

Exam Board AQA							
Topic Big question	**Lesson questions**	**Lesson objective**	**Outcomes**	**Key Terms** **Literacy** **Numeracy** **Practical activities**	**Assessment and homework tasks**	**Resources**	**Personal Development curriculum links (SMSC, British Values, PSHE)**
Term 4							
P5c – Forces and motion.							
How do forces affect motion?	What happens to an object moving at constant speed if there is no resultant force?	To be able to define Newton's first law and link it to different scenarios.	- To recall Newton's First Law: an object will remain stationary or remain moving at constant velocity if there is no resultant force - To understand that a vehicle with a driving force equal to resistive forces with be moving at a steady speed - To explain the effect that a non-zero resultant force will have on an object with regard to speed or direction of movement.	Balanced force Equilibrium Newton's first law Resultant force	Homework tasks linked to the lesson question. Plenary questions at the end of every lesson.	Knowledge organiser CGP textbook Lesson PowerPoint presentations	British values – respect through silence is a key aspect of the Abbey science lessons. – Students are expected to listen to and respect others' opinions.
	How are force, mass and acceleration linked? *(Some higher content)*	To be able to define Newton's second law and link it to different scenarios.	- To recall Newton's Second Law as an equation: F = ma - To describe, by estimating, the resultant forces acting in everyday accelerations - *To explain that the inertia of an object is the tendency for its motion to remain unchanged.*	Gravitational mass Inertia Inertial mass Newton's second law Resultant force To calculate force using the equation: F = ma. To calculate inertial mass using the equation: m = F/a			

	How can we experimentally test Newton's second law? **REQUIRED PRACTICAL**	To investigate the relationship between force, mass and acceleration.	- To follow a set method to investigate the link between force, mass and acceleration. - To use this data to draw a graph and describe the relationship. - To be able to draw valid conclusions and evaluate the method used.	Balanced force Newton's second law Resultant force To investigate the link between force, mass and acceleration, **practical activity**.			
	How can we describe the forces acting on interacting objects?	To be able to define Newton's second law and link it to different scenarios.	- To recall Newton's Third Law in that two interacting objects will exert equal and opposite forces on each other - To understand the application of Newton's Third Law to different situations - To explain why some equilibrium situations are examples of Newton Third Law or not -	Equal Interacting pair Newtons third law opposite			
P5d – Car safety and momentum							
Why is driving one of the safest modes of transport?	What factors affect a person's ability to drive safely?	To be able to define the terms thinking distance, breaking distance and stopping distance and explain how various factors could affect these distances .	- To recall the definition of thinking and braking distances - To describe the relationship between stopping distance, thinking distance and braking distance - To calculate stopping distance. - To explain the factors that affect both braking and thinking distances and their implications on safety	Breaking distance stopping distance Thinking distance	End of year assessment focused on all topics covered throughout the year. Homework tasks linked to the lesson question. Plenary questions at the end of every lesson.	Knowledge organiser CGP textbook Lesson PowerPoint presentations	SMSC – Discussion around risks of drink/drug/ texting whilst driving. British values – respect through silence is a key aspect of the Abbey science lessons.
	How do you measure reaction time?	To be able to investigate the effect of a factor on human reaction time.	- To carry out the ruler drop test under normal conditions, and 'distracted' conditions. - To draw valid conclusions from the results and evaluate the method used.	Reaction time Variables To be able to calculate the mean from results collected.			

			- To determine other factors that could be tested and/or another method to measure reaction time.	Ruler drop test, **practical activity**			– Students are expected to listen to and respect others' opinions.
	Why do a car's brakes get hot when used?	To be able to describe the energy transfers that occur when a vehicle brakes.	- To recall the energy transfers which occur when a vehicle brakes. - To describe that a greater speed will need a larger braking force to stop a vehicle in a given distance - *To estimate the force required to produce a deceleration of a vehicle in a typical situation.*	Braking Deceleration Energy transfer			
Term 5							
P5d – Car safety and momentum							
Why is driving one of the safest modes of transport?	How is momentum linked to mass and velocity? **(Higher only)**	To be able to explain the motion of molecules within a gas, and how this changes as the gas is heated.	- To recall the formula p = mv - To understand what momentum is and that it must be conserved - To explain and describe an event in terms of momentum -	Conservation Momentum To calculate momentum using the equation: P = mv	End of topic assessment focused on P5 (whole topic)	Knowledge organiser CGP textbook Lesson PowerPoint presentations	SMSC – Discussion around risks of drink/drug/ texting whilst driving.
The rest of the term is dedicated to revision for the GCSE examination.							