### Curriculum Outline 2024-25

Year 11

Timing	Unit Title	Key Question	Knowledge	Assessing understanding
Autumn	Forces and Motion	How do we describe motion?	<ul> <li>Reaction Times, Thinking, Braking and Stopping Distance</li> <li>Speed, distance and time</li> <li>Distance and Velocity-Time Graphs</li> <li>Solving problems with acceleration and SUVAT equations</li> </ul>	<ul> <li>How understanding is assessed</li> <li>Students will be assessed on their ability to: <ul> <li>recall the knowledge covered</li> <li>explain the Physical processes covered.</li> <li>interpret graphical and experimental data</li> <li>plan and describe valid experiments</li> <li>evaluate experimental procedures and results.</li> </ul></li></ul>
	Forces in Action	How do we represent forces?	<ul> <li>Scalars and Vectors - representing vectors</li> <li>Distance + Displacement</li> <li>Adding Vectors Scale Drawing</li> <li>Resolving Vectors</li> <li>Forces as Vectors and free-body diagrams</li> <li>Resultant forces</li> <li>Weight, gravity</li> </ul>	<ul> <li>Description</li> <li>Explanation</li> <li>Evaluation</li> <li>Comparison</li> <li>Planning and carrying out investigations</li> <li>Manipulating Mathematical Formulae</li> </ul>
		How can Forces be used to help?	<ul> <li>Newton 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> Laws</li> <li>Required Practical 7 - Newton's Second Law</li> <li>Terminal Velocity</li> <li>Satellites in terms of Gravity – circular motion</li> </ul>	<ul> <li>Assessment point information <ul> <li>Based on:</li> <li>Home works during the term</li> <li>Possible test in first half term on Electricity</li> <li>Test in second half term on Motion, SUVAT and Scalars and Vectors.</li> </ul> </li> </ul>

### Curriculum Outline 2024-25

## **Department:** Physics

Spring			<ul> <li>Momentum: Conservation and Change</li> </ul>	How understanding is assessed
				Students will be assessed on their ability to:
				<ul> <li>recall the knowledge covered</li> </ul>
			• Magnets, Magnetic materials and Magnetic Fields	<ul> <li>explain the Physical processes covered.</li> </ul>
			Electromagnetism	<ul> <li>interpret graphical and experimental data</li> </ul>
	Electromagnetism	How can electricity and magnetism be used to help?	Electromagnetic Devices	<ul> <li>plan and describe valid experiments</li> </ul>
			The Motor Effect	<ul> <li>evaluate experimental procedures and results.</li> </ul>
			How Motors work	Skills
			<ul> <li>Loudspeakers</li> </ul>	Description
			Electromagnetic Induction 1	Explanation
			Electromagnetic Induction 2	Evaluation
			Microphones	Comparison
			• Transformers 1	<ul> <li>Planning and carrying out investigations</li> </ul>
			• Transformers 2	<ul> <li>Manipulating Mathematical Formulae</li> </ul>
				Assessment point information
				Based OII. bome works during the term
				<ul> <li>nome works during the term</li> <li>mock Exams covering all topics studied so far</li> </ul>
				• mock exams covering an topics studied so fail.

### Curriculum Outline 2024-25

# Department: Physics

Summer	Turning Forces	<ul> <li>Centre of Mass / Stability</li> </ul>	How understanding is assessed
	and Pressure	<ul> <li>Moments, Levers and gears</li> </ul>	Students will be assessed on their ability to:
		Pressure equation	<ul> <li>recall the knowledge covered</li> </ul>
			<ul> <li>explain the Physical processes covered.</li> </ul>
	Revision	Atmospheric Pressure	<ul> <li>interpret graphical and experimental data</li> </ul>
			<ul> <li>plan and describe valid experiments</li> </ul>
			<ul> <li>evaluate experimental procedures and results.</li> </ul>
			Skills
		Revision of all areas.	Description
			Explanation
			Evaluation
			Comparison
			<ul> <li>Planning and carrying out investigations</li> </ul>
			<ul> <li>Manipulating Mathematical Formulae</li> </ul>
			Assessment point information
			Based on:
			GCSE Exams