

Physics GCSE Overview



Year 10		Year 11		
<p>This GCSE course is part way through a change in order. This means that the current year 10 students will be learning different content in year 11 next year, when compared to the content shown now for year 11.</p> <p>Students will be given a variety of assessments each term to track their progress in literacy (RLITs), practical skills (RPs), application of knowledge through context questions (RCQs) and subject knowledge (EUTs).</p>				
<p>In June students will be given an exam that assesses skills, subject knowledge and application of content covered in year 9 as well as year 10.</p> <p>In addition, in January students will be given a mid-year exam that covers the content of the year 9 course and the Autumn term units in year 10.</p>		<p>In November and March students will be given a mock exam that assesses skills, subject knowledge and application of content covered in years 9 & 10 as well as year 11. The first Mock exam is used to inform predicted grades for the summer.</p>		
	Units	Assessment	Units	Assessment
Autumn	<p>10.1 – Conservation & Dissipation of Energy</p> <p>Students discover how energy comes in many different stores. They investigate one of the big ideas of physics, that energy is never created or destroyed. They also learn how to calculate how much energy is needed to stretch an elastic band, to get a car moving, and to climb a flight of stairs.</p>	<p>End of Unit Test</p> <p>Context Questions</p> <p>Literacy Task</p>	<p>11.1 – Electric Circuits</p> <p>Students investigate what electricity is and how electrical circuits work. They learn how to measure and calculate values for current, potential difference and resistance.</p>	<p>End of Unit Test</p> <p>RP: The resistance of a wire</p> <p>RP: Characteristics of electrical components</p>
	<p>10.2 – Electric Circuits</p> <p>Students investigate what electricity is and how electrical circuits work. They learn how to measure and calculate values for current, potential difference and resistance.</p>	<p>End of Unit Test</p> <p>RP: The resistance of a wire</p> <p>RP: Characteristics of electrical components</p>	<p>11.2 – Domestic Electricity</p> <p>Students learn how the National Grid supplies homes with electricity. They investigate alternating and direct current and learn how to calculate the energy use and efficiency of electrical appliances such as kettles and toasters.</p>	<p>End of Unit Test</p> <p>Context Questions</p>
	<p>10.3 – Domestic Electricity</p> <p>Students learn how the National Grid supplies homes with electricity. They investigate alternating and direct current and learn how to calculate the energy use and efficiency of electrical appliances such as kettles and toasters.</p>	<p>End of Unit Test</p> <p>Context Questions</p>	<p>11.3 – Electromagnetism</p> <p>Students investigate the magnetic effects of bar magnets and electrical circuits. Students learn how generators and motors work.</p>	<p>End of Unit Test</p> <p>Literacy Task</p>

Spring	<p>10.4 – Radioactivity</p> <p>Students learn about the discovery of the nucleus and the structure of the atom. They investigate the different kinds of radiation and learn about the uses and effects of radioactive materials.</p>	<p>End of Unit Test</p> <p>Literacy Task</p>	<p>11.4,5 & 6 – Forces in Balance, Motion, and Forces and Motion</p> <p>Students re-visit work undertaken in year 9 and build upon this by investigating acceleration and momentum. They learn about the effects of pressure on different surfaces and learn how to use Newton’s laws of motion.</p>	<p>End of Unit Test</p> <p>RP: Extension of a Spring</p> <p>RP: Force and Acceleration</p>
	<p>10.5 – The Particle Model of Matter</p> <p>Students investigate the nature of matter. They conduct experiments to find out how matter changes state and how much energy it takes to change the temperature of different kinds of materials.</p>	<p>End of Unit Test</p> <p>RP: Calculating Density</p> <p>Context Questions</p>	<p>11.7 – Forces and Pressure</p> <p>Students investigate the factors which change gas pressure, and investigate the links between forces and pressure.</p>	<p>End of Unit Test</p>
Summer	<p>10.7 – Light</p> <p>Students investigate how light behaves and how it interacts with different materials. They will investigate the effects of lenses and mirrors and research the uses of light.</p>	<p>End of Unit Test</p> <p>RP: Reflection and Refraction</p>	<p>Revision and Exam Practice</p>	
	<p>10.8 – Space</p> <p>Students study what makes up our solar system, galaxy and universe. They discover the life cycle of a star and learn about how we study space.</p>	<p>End of Unit Test</p> <p>Literacy Task</p>		