



The curriculum for this stage of students' education has been designed to build upon their prior knowledge from year 9 and 10 GCSE Physics. This course provides a worthwhile background for all students, whether or not they intend to go on to study Physics beyond GCSE. The course enables students to acquire a body of scientific knowledge and develop an understanding of the ideas and applications of Physics e.g. Energy, Forces and Motion, Waves and the Electromagnetic Spectrum. This is set in the context of knowing and understanding a body of scientific facts. Students acquire an understanding and experience of the methods used in science and of the application of experimental techniques in everyday life.

<p>HALF TERM 1: Waves, Electromagnetic Spectrum and Light</p> <p>STUDENTS MUST KNOW:</p> <ul style="list-style-type: none"> The Nature and Properties of Waves. To be able to identify transverse and longitudinal wave and describe how they transfer energy using a particle motion model identifying wavelength and frequency to calculate the speed of a wave. Reflection and Refraction. To be able to describe the effects of reflection and refraction. Reflection Investigation. To investigate the law of reflection and how it applies to visual effects. The Electromagnetic Spectrum. To understand the spectrum of electromagnetic waves and how they transfer energy. Light, IR, Microwave and Radio Waves. To understand the uses of light, infrared, microwave and radio waves in the world around us. <p>HOW THIS WILL BE ASSESSED: Students will be assessed by a progress test half way through the topic as well as an end of topic assessment.</p>	<p>HALF TERM 2: Waves Continued, Magnetism and Electromagnetism</p> <ul style="list-style-type: none"> STUDENTS MUST KNOW: Infrared Light Investigation. To investigate the emission and absorption of infrared radiation. Communications. To understand how a communication network uses radio, microwave and fibre optics to transfer information. Ultraviolet waves, X-Rays and Gamma Rays. To understand the properties and uses of ultraviolet waves, X-Rays and Gamma Rays. X-Rays in Medicine. To understand how are X-Rays used in medicine. Magnetic fields: Understand the shape of magnetic fields Electromagnetism and its uses: Understand how electromagnets are constructed and used The motor effect and using it: Explain how motors work <p>HOW THIS WILL BE ASSESSED: Students will be assessed by a progress test half way through the topic as well as an end of topic assessment.</p>	<p>HALF TERM 3:</p> <p>Consolidation, Revision and Past Papers</p>
<p>HALF TERM 4:</p> <p>Consolidation, Revision and Past Papers</p>	<p>HALF TERM 5:</p> <p>Consolidation, Revision and Past Papers</p>	

Embedding this knowledge can be supported at home by reviewing class notes, guided learning wider reading, exam practice questions, independent research and study, completing set independent study tasks, watching in scientific documentaries and understanding current issues in the scientific world. In addition, use the AQA website, BBC Bitesize and GCSEPOD in conjunction with suitable revision guides.