



Key Stage: 5

Subject: Physics

Aims of the subject: Students will continue to develop their understanding of topics started at GCSE. They will further develop problem solving skills by applying new and existing ideas. Students will also learn and develop laboratory skills, making more use of recently acquired mathematical skills for analysis. Physics is more than a subject - it trains your brain to think beyond boundaries.

A-Level Examination Board: AQA Physics (7408)

Assessment Overview:

Paper 1 (2 Hours) - Measurements and their errors, particles and radiation, waves, mechanics and materials, electricity, periodic motion.

Paper 2 (2 Hours) – Thermal physics, fields and their consequences, nuclear physics. Assumed knowledge from all topics covered.

Paper 3 (2 Hours) – Section A: Compulsory section: Practical skills and data analysis. Section B: Turning points in Physics module.

Course	What will I study?	Assessment
Year 1	<p>Term 1: Newton's laws of motion, Energy, Moments, Electricity, Practical skills development.</p> <p>Term 2: Materials and their properties, Waves, Electron Physics, Practical skills development.</p> <p>Term 3: Particle Physics, Practical skills development. Begin year 2: Circular motion and magnetic fields.</p> <p>Students have dedicated practical skills lessons in order to perform their compulsory practical work. These will be within their teaching timetable when the relevant topics are covered. In these they will carry out a series of experiments to develop practical skills.</p>	<p>At the end of each fortnightly cycle of work, students are set exam questions to enable them to practise writing answers of the required standard.</p> <p>Topics tests and are given to students at half-termly intervals or where appropriate.</p> <p>Year 1 students will sit a January and May mock exam.</p> <p>Students keep a record of their practical work in laboratory notebooks.</p>

<p>Year 2</p>	<p>Term 1: Simple harmonic motion, electric fields, thermal physics, gases, radioactivity.</p> <p>Term 2: Gravitational fields, capacitance, nuclear energy, special relativity, discovery of the electron, wave particle duality and induction.</p> <p>Term 3: Exam preparation.</p> <p>Students have dedicated practical skills lessons in order to perform their compulsory practical work. These will be within their teaching timetable when the relevant topics are covered. In these they will carry out a series of experiments to develop practical skills. If all criteria are met this will lead to a practical endorsement from AQA.</p>	<p>At the end of each fortnightly cycle of work, students are set exam questions to enable them to practise writing answers of the required standard.</p> <p>Topics tests and mock exams are given to students at half-termly intervals or where appropriate.</p> <p>Year 2 students will sit a January and May mock exam.</p> <p>Students keep a record of their practical work in laboratory notebooks.</p>
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Enrichment opportunities

Suggestions for wider reading

- Physics review
- Institute of Physics (IoP) publications
- Other popular physics literature.