

Physics

Physics is an exciting subject that allows students to appreciate how fundamental science works, from both the smallest particles to the vastness of galaxies and the universe. It is deemed vital in the modern world, to develop new materials, machinery, and technology to improve our lives and help us explore the universe further. Studying it is a challenging but rewarding route to understanding the world around us.

The A Level course builds on the concepts and skills that will have been developed at GCSE Science, presenting Physics as exciting, relevant and challenging. Students will develop a deeper understanding of the concepts and application of physics ideas in interesting and novel contexts, as well as the acquisition of knowledge. There is also a strong emphasis on advanced practical skills.



COURSE CONTENT

This two-year course contains a range of topics with 12 required practicals embedded into the teaching.

Year 12:

- Measurements and their Errors
- Particles and Radiation
- Waves
- Mechanics and Materials
- Electricity

Year 13:

- Further Mechanics and Thermal Physics
- Fields and their Consequences
- Nuclear Physics
- Astrophysics

SKILLS REQUIRED

GCSE Grade 8 or above is required in Physics and Mathematics due to the rigours of this course. Separate rather than combined GCSE Physics is highly recommended as a precursor to studying at A Level. In exceptional cases, applicants with a Grade 7 may be considered on the understanding that the course can be challenging for such individuals. At least 40% of the marks in Physics assessments will require using mathematical skills. These skills will be applied in the context of the course and will be at least higher tier GCSE mathematics. It is highly recommended (but not essential) that students take A Level Mathematics alongside physics as a complementary subject.

ASSESSMENT

All course content is examined at the end of the two-year course:

Paper 1:

Year 1 content. 2 hours. 34% of final marks.

Paper 2:

Year 2 content. 2 hours. 34% of final marks.

Paper 3:

Years 1 & 2 content and practical skills. 2 hours. 32% of final marks.

Practical Skills Assessment

The assessment of practical skills is a compulsory requirement of the course of study for A Level qualifications in biology, chemistry and physics. Throughout the course, students undertake 12 practicals in which they will demonstrate their competency. Practical skills are internally assessed and moderated externally. A practical skills endorsement is reported alongside (but does not contribute to) the A Level grade.

ENRICHMENT

Students can take part in a variety of competitions to stretch their problem-solving skills and to challenge their knowledge and ability to apply fundamental physical principles to novel situations. These include the Senior Physics Challenge and the British Physics Olympiad.

FUTURE PATHWAYS

Physics A Level is a highly regarded subject for a wide range of higher education courses and is beneficial for many careers, including those in science, engineering, electronics and the medical field. Students of Physics are valued by employers for their problem-solving and numeracy skills.

EXAM BOARD

AQA 7408



Hear from our Students

Scan to listen

