Campion School Sixth Form
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A Level Physics - Course Information

Exam board – OCR syllabus Physics A

What is A Level Physics?

A level Physics covers the basis of how things work, from the constituent parts of atoms out to the extent of the universe. You will integrate the concepts studied with a range of practical experiments throughout each topic giving the course both an academic and practical focus.

What does the course involve?

- Engage and inspire the scientists of the future.
- Explore key areas such as forces and motion, electricity, waves, quantum physics, materials, fields, and astrophysics.

Entry Requirements: GCSE Combined Science Grade 77 or Triple Physics Grade 7 or above

GCSE English Grade 5 & Mathematics Grade 7 or above

What themes are studied?

- Module 1: Development of practical skills in physics
- Module 2: Foundations in physics
- Module 3: Forces and motion
- Module 4: Electrons, waves and photons
- Module 5: Newtonian world and astrophysics
- Module 6: Particles and medical physics

How is it assessed?

Assessment is through **three written exams** at the end of Year 13, each testing knowledge, data analysis, and evaluation skills across all six modules.

Paper 1: Modelling physics - written exam: 2 hours 15 mins - 37% of A Level (100 marks)
Paper 2: Exploring physics - written exam: 2 hours 15 mins - 37% of A Level (100 marks)
Paper 3: Unified physics - written exam: 1 hour 30 mins - 26% of A Level (70 marks)
Practical endorsement in physics – non examined assessment

What are lessons like?

A Level OCR Physics lessons blend theoretical learning with practical investigation and mathematical problem solving. Lessons often involve calculations, experiments, modelling, simulations, and real-world applications like electronics, engineering and space science. Practical skills are developed through required experiments involving circuits, mechanics, oscillations and measurements. Regular tests, exam-style questions and independent practice are important for mastering the mathematical content. Across the two years, students strengthen analytical thinking, data handling and experimental skills in preparation for the final exams and the practical endorsement.

Where Can Physics Take You?

A Level OCR Physics leads to a wide range of STEM pathways, supporting university courses such as physics, engineering, computer science, mathematics, astronomy and architecture, as well as careers in engineering, technology, data science, electronics, aerospace and renewable energy. The qualification is valued for developing strong mathematical, analytical and problem solving skills, and it also supports access to technical and engineering apprenticeships in fields like robotics, manufacturing, telecommunications and applied physics.

For more information about the course, please see Mr Boateng