



# Physics

We study the OCR A specification at A level. The course content covers the basis of how things work, from the constituent parts of atoms out to the extent of the universe. Pupils will integrate the concepts studied with a range of practical experiments throughout each topic, giving the course both an academic and practical focus. Pupils will learn to apply their own knowledge of the key concepts to solve problems in a range of different contexts and applications.

In Lower Sixth, pupils will study the fundamentals of mechanics, electric circuits and waves, while we also introduce the intriguing and counter-intuitive world of Quantum Mechanics.

In Upper Sixth, pupils encounter electric and magnetic fields, capacitors and simple harmonic motion. However, they also explore nuclear physics, astrophysics, and diagnostic and treatment techniques in medicine. The course has recently been augmented with the latest ideas concerning dark matter and particle physics.

Pupils are expected to display competent and capable research skills and to keep a laboratory book as part of their evidence towards the Practical Endorsement.

Pupils will complete six hours' worth of examinations at the end of the Upper Sixth: two papers for 2 hours 15 minutes and one paper for 1 hour 30 minutes.

The department has excellent laboratory facilities, a skilled and experienced technician and dedicated teaching staff, all of whom have physics-related degrees.

Physics complements other science subjects and is closely linked to Mathematics.

A physics qualification demonstrates to employers that prospective employees have analytical and mathematical skills they can apply to real life situations. Engineering is a popular choice and the skills developed from the course equips pupils for almost any career, including finance, computing, medicine, forensic science, research, cosmology, astronomy and law.

Further information can be found at:

<https://www.ocr.org.uk/qualifications/as-and-a-level/physics-a-h156-h556-from-2015/>

<https://www.ocr.org.uk/Images/261334-a-level-physics-a-qualification-factsheet.pdf>

