

**Academic Requirements**

Are you the sort of person who wants to ask questions about the world around you, who wants to be able to answer the really big questions about the universe and everything?

Do you find how the world works fascinating? Do you want to try and help solve the problems facing us today; like how can we get enough energy to keep things working? How can we make life easier for people with physical disabilities? How can we have more efficient sports equipment?

Do you enjoy applying your mind to solving problems? Do you enjoy carrying out investigations that need imaginative and logical thinking?

If so, then a study of Physics beyond school will help you to achieve these things and the next step for you will be to study A level Physics.

AS Physics is suitable for those who want to study a relevant worthwhile qualification to either complement their maths/sciences or as a separate science to support and balance a more artistic selection of subjects.

Candidates would be expected to possess a minimum of Grade B in GCSE Physics, or B in Core and Additional Science (Double Award). It will be very helpful to have at least a Grade B in GCSE Mathematics, as numeracy and mathematical skills are important in Physics. We work closely with the Mathematics department to provide help for the non-A level Mathematics students if they have a problem with the mathematics required.

Communication is also important in Physics, so you will need to be able to communicate effectively, to research and to think critically about problems. You will learn theory, develop relevant practical skills throughout the course and have fun!

**Course Specification:** OCR Physics A (H158, H558)

The qualification builds on the knowledge, understanding and process skills that will have been developed in GCSE Science. The AS level is a qualification in its own right. Students study three units in the AS (Units 1-3). The full A level is made up of the AS level and three more units (Units 4-6).

Unit 1 Mechanics	Unit 4 Newtonian World
Unit 2 Electrons, Waves and Photons	Unit 5 Fields, Particles and Frontiers in Physics
Unit 3 Practical Skills in Physics 1	Unit 6 Practical Skills in Physics 2

There is no coursework in either AS or A level Physics.

**Why Physics?**

It is a fascinating subject and is an important qualification in a wide range of careers in technology and science, particularly in engineering. It is also useful for medical and veterinary careers. Perhaps surprisingly, Physics is also a very welcome qualification in law, banking, accountancy, media and marketing etc, since a good A level pass proves you possess good analytical and problem solving skills and are mathematically competent.

**A Student's Perspective**

'Physics at A level is a challenging, yet rewarding course. It provides invaluable explanations for many processes, from why the sky is blue to the marvels of  $E=mc^2$ . Through Physics I have become part of the Engineering Education Continuum, tackling real life problems with real companies, which is proving invaluable to my UCAS applications. At A level you will experience topics familiar from GCSE, but at a far deeper level allowing you to understand and enjoy the topic. The supportive classroom atmosphere makes the subject even more enjoyable than GCSE. I have enjoyed this stimulating course immensely.'