Physics

Overview

Our A Level in Physics course enables students to build on their knowledge of the laws of physics, applying their understanding to solve problems on topics ranging from subatomic particles to the entire universe. They also have the opportunity to develop all the relevant practical skills.

Students will follow the OCR Physics A level course (code H556)

In Year 12 you will study 3 modules: Foundation of Physics; Forces and Motion; Electrons, Waves and Photons.

In Year 13 you will study 2 modules: Newtonian World and Astrophysics; Particles and Medical Physics.

Expectations

In order to be best prepared for A Level study, students are expected to complete a bridging activity from GCSE to A Level before the course commences. In lessons, students are required to carry out a number of practical tasks, both in groups and independently. Students will need to reflect on their own work and evaluate others, being prepared to articulate results and conclusions. Students are expected to bring a high level of creativity and adaptability to their work as well as a resilience in the application of mathematics to the study.

Prior reading is mandatory before each lesson, as is attempting questions to assess students' own understanding. Extended reading and annotations of notes are also expected, and students are required to regularly assess their learning against the specification. We expect a minimum of eight hours work each week outside the lesson in order to be an excellent Physicist.

You will need to attain a grade 6 or higher at GCSE Science or Physics to take this course. You will also need a keen understanding of Maths to be able to succeed at Physics and so we would need a level 6 or above in Maths to be able to join the course.

Extra-Curricular Activities/Independent Learning Opportunities

We have had the opportunity as a Science Department to visit Iceland and see the Northern Lights (which is formed by the ionisation of the particles in our atmosphere by high energy cosmic radiation which is targeted over the north pole by the earth's magnetic field!) We have also been on a trip to CERN and the Large Hadron Collider. We have got a fantastic working relationship with Oundle School which means we sometimes visit their laboratories for joint practical work.

Entry Requirement: In addition to the entry requirements mentioned in the Sixth Form Prospectus, you will need to attain a grade 6 or higher at GCSE Physics, or a grade 6,6 or higher in GCSE Combined Science to take this course.