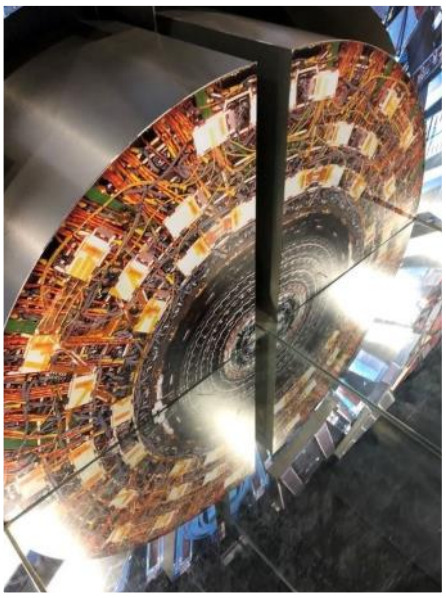
Physics - A Level



Contact Person: Mr T Smith

Course Outline:

Physics, also known as Natural Philosophy, is the study of nature and the universe in the broadest sense. It is at the heart of everything, and is a rewarding discipline. Physics is the foundation of technology with far-reaching implications for almost all areas of study, and crucially, how we live.

This AQA specification has been developed in consultation with leading universities to provide students with the essential skills and knowledge required for degree level study, whilst incorporating fascinating contemporary aspects of Physics.

Students in Y12 are taught the first principles of Physics across 4 modules with cover fundamentals upon which to build further knowledge. We begin the course with a branch of Physics not covered at any previous point in your education, and you will be exposed to new ideas with far-reaching implications as you take your first steps into the world of Quantum Physics.

In Y13 we expand upon the foundations set, covering a further 4 modules including topics such as nuclear physics, electric and magnetic fields, and simple harmonic motion. These topics will stretch and challenge your problem solving, and enhance your critical thinking.

Progression Post-18

Previous A Level Physics students have gone on to study a range of scientific and non-scientific courses at university. These include: mathematics, aerospace engineering, music, astrophysics, electrical and mechanical engineering audio technology and engineering, apprenticeships at local companies such as GE Oil. A Level Physics is a required A Level for most engineering courses.

Practical work is at the heart of the course, with regular opportunities to conduct hands-on investigations, allowing students to collect, analyse and evaluate data, and develop practical skills. Successful completion of the practical element to the course is rewarded with a Practical Endorsement, which is essential for many practical science and engineering university courses.

For this course we are looking for students with an innate curiosity and fascination about how things work, in addition to a proven aptitude for science and mathematics, and excellent organisational skills.

Through studying Physics A-Level you will develop and improve upon a wide range of transferable skills, many of which you will have demonstrated in your prior studies, including;

- Making and recording reliable measurements with appropriate accuracy and precision.
- Communicating scientific understanding through report writing and presentations.
- Solving problems through methodical and logical application of mathematics.
- Assessing the validity, reliability and credibility of scientific information.

The course 100% examinations based, assessed through final 3 exams in the summer term, each 2 hours. Examinations consist of short and long written answer questions, extended calculations, multiple choice, and questions focusing on practical skills and analysis.

Candidates of this course are offered the exciting opportunity to take a trip to CERN, Geneva (fees apply), for a first-hand look at the exciting research taking place at the world's largest particle accelerator, the Large Hadron Collider.

Qualification: A Level **Examination:** 100%

Examination Board: AQA