

Physics

Course Leader: Mr A Walker

Why Study Physics?

The A Level Physics course encourages students to think logically, visualise problems and be creative in providing solutions. You will develop essential knowledge and understanding in theoretical physics and in the applications of physics and you will develop the skills needed to apply theory to new and changing situations. You will develop your practical skills to be able to accurately record, analyse and evaluate data. You will become confident in applying mathematical techniques to physical situations, and gain some insight into the wonders of modern physics.



Course Content and Assessment

A Level Core content

- 1 Measurements and their errors
- 2 Particles and radiation
- 3 Waves
- 4 Mechanics and materials
- 5 Electricity
- 6 Further mechanics and thermal physics
- 7 Fields and their consequences
- 8 Nuclear physics

Option

12 Turning points in Physics

Assessments

The A Level course is assessed by written exams:

- Paper 1 (34%) Sections 1 to 5 and 6.1 (Periodic motion).
- Paper 2 (34%) Sections 6.2 (Thermal Physics), 7 and 8; assumed knowledge from sections 1 to 6.1.
- Paper 3 (32%) Part 1 Compulsory section: Practical skills and data analysis; Part 2: Turning Points in Physics.

Progression Routes

A Level Physics is a good choice for students considering any science-based course in higher education, including Physics, Mathematics and Mechanical, Civil or Aeronautical Engineering. It is also one of the 'facilitating subjects' identified by the Russell Group universities as useful for getting on to a wide range of university courses.

Mathematics is important to those students wishing to take physics further. Other subjects which combine well with Physics are the other sciences and Geography. Employers today respect and seek out people who have learnt to think logically and clearly, know how to solve problems, are creative and love a challenge. These are exactly the sort of qualities a student will develop through the study of Physics.

Studying A Level Mathematics alongside A Level Physics is recommended but not essential.

Entry Requirements

In order to cope with the demands of the course, students should have achieved at least grade 6 in Higher GCSE Physics **OR** grade 6 in Higher GCSE Trilogy Science. In addition, at least grade 6 in GCSE Maths and at least grade 4 in GCSE English.