

PHYSICS

We offer A-level Physics from Edexcel. Students develop an understanding of concepts and applying these in context to explain physical phenomena and technologies. They are taught in a small, friendly groups in well-equipped laboratories and have many opportunities for hands-on experimental work, continuing to develop their understanding of scientific method. Students quickly become confident and independent experimentalists, happy to try out new challenges.

ENTRY REQUIREMENTS

This qualification builds on the knowledge, understanding and practical skills that you gained when studying GCSE Physics. You should have gained at least a Grade 7 in GCSE Physics (or 7:7 grades in Combined Science) and you should also have at least a Grade 7 in GCSE Mathematics. Numerical and mathematical skills are important in Physics and form 40% of the assessment. It is important that you can rearrange formulae competently, think logically about problems and communicate effectively.

HIGHER EDUCATION AND CAREER OPPORTUNITIES

Physics provides a broad training in skills valued by many employers such as a determination to solve problems, and present explanations clearly. As a Physicist, many specialist opportunities become open to you too.

You could be investigating the realities of climate change and meeting the energy demands of the future. Physics also plays an integral role in the development of new medical technologies such as developing artificial limbs, improving hearing and sight, or designing specialist medical equipment. There are a multitude of engineering possibilities from aeronautical to mechanical or electrical to civil. You could be designing bridges, developing the latest mobile phone or testing planes!

As a Physicist you could be conducting research in organisations all over the world on anything from particle accelerators to analysing the data collected from space or developing functioning systems in a world so small that you can't see it using a normal microscope!

As you can see, there is a wealth of opportunities out there. Studying Physics could take you anywhere from the tiniest particle to the whole universe!



COURSE CONTENT

Exam Board: Edexcel

The A- Level examination consists of three papers:

Paper 1: 1 hour and 45 minutes

- Mechanics
- Electric Circuits
- Further Mechanics
- Electric and Magnetic Fields
- Nuclear and Particle Physics

Paper 2: 1 hour and 45 minutes

- Materials
- Waves and Particles - Nature of Light
- Thermodynamics
- Nuclear Radiation Oscillations
- Gravitational Fields and Space

Paper 3: 2 hour and 30 minutes

This focuses on both practical skills and synoptic questions. The paper will include questions that assess conceptual and theoretical understanding of experimental methods that will draw on students' experiences of the core practicals.

Science Practical Endorsement:

Students will also be assessed for a separate qualification known as the Practical Endorsement. It is internally assessed and externally moderated by Pearson Edexcel. Students must show practical competency by completing practicals throughout the course. Students will be given opportunities to use relevant apparatus and techniques to develop and demonstrate specific practical skills throughout the two years.