

Why Study A Level Physics?

Course Introduction

A-level Physics builds on GCSE knowledge to explore the laws that govern the universe, from the motion of everyday objects to the behaviour of particles and the structure of space.

You'll develop problem-solving, mathematical and practical skills while discovering how physics explains the world around us.

Entry Requirements

5 GCSEs with a minimum Grade 6
Minimum Grade 6 in GCSE Maths,
GCSE Physics or Combined Science
and Grade 5 in English

Course Content

A Level Physics explores how physical principles explain motion, energy, electricity and the wider universe.

- Foundations of physics: Develop skills in measurement, units and analysing scientific data.
- Forces and motion: Explore movement, energy, momentum and the behaviour of materials.
- Electrons, waves and photons: Investigate electricity, circuits, wave behaviour and quantum physics.
- Astrophysics and modern physics: Study gravity, stars and the universe, alongside particles, electromagnetism and medical imaging.

Skills Developed

Develop your mathematical reasoning, practical investigation and analytical thinking. Learn to apply equations, interpret graphs and evaluate experimental evidence while solving complex problems. You'll also strengthen your accuracy, logical reasoning and ability to explain scientific ideas clearly.

Career Opportunities

A-level Physics can lead to university courses and careers in engineering, astronomy, medical physics and computing. It provides a strong foundation for fields such as renewable energy, aerospace, electronics and scientific research, while developing transferable skills valued in technology, finance and other analytical professions.

Course Assessment

Assessment combines written examinations featuring calculations, practical-based questions, data analysis and explanations of physical principles.

- Paper 1: Modelling Physics: 2 hours 15 minutes (37%).
- Paper 2: Exploring Physics: 2 hours 15 minutes (37%).
- Paper 3: Unified Physics: 1 hour 30 minutes (26%).

