

Physics

About the course

If you have an enquiring mind, enjoy a challenge and like solving problems, then this is the subject for you! From the smallest part of the human body to the great clusters of galaxies, Physics helps us understand how the world works. The applications, like the career opportunities, are infinite. Employers today actively seek out people who can prove their ability to think logically, understand complex ideas and apply them to the real world. Whether you want to pursue a career in science, the media, education, business or a host of other fields, Physics can give you the edge.

To reach **AS level** standard you will need to complete the following four modules:

Module 1 Development of practical skills in Physics: this topic is concerned with planning experiments, analysing data and drawing graphs.

Module 2 Foundations of Physics: this unit contains ideas about physical quantities, error analysis and vector and scalar quantities.

Module 3 Forces and Motion: this module covers the topics of Motion, Forces in Action, and Work and Energy.

Module 4 Electrons, Waves and Photons: this unit consists of five teaching modules - Electric Current, Resistance, DC Circuits, Waves and Quantum Physics.

To reach **A Level** standard you will need to complete two additional modules:

Module 5 The Newtonian World and Astrophysics: this module provides the opportunity to discuss the use of models to explain the elaborate physical world around us. It also contains ideas about thermal energy and cosmology.

Module 6 Particles and Medical Physics: this module demonstrates how scientific theories develop to explain the physical world around us. It introduces the laws developed by Coulomb, Faraday and Lenz and provides an understanding of Particle Physics and medical physics.



A subject that takes you all the way from the formation of stars to deep inside the atom

How it will be assessed

AS and A Level Physics are entirely exam-based.

AS Level - two exam papers, each worth 50% of the final mark, assess content from Modules 1 - 4.

A2 Level - three exam papers (37%, 37% and 26% of the final mark) assess content from Modules 1 - 6. There is a practical skills endorsement in addition to the exam grade awarded.

What it prepares you for

Physics can help you to develop a flexible portfolio of skills that will equip you for a satisfying career. Some of the industries in which a Physics qualification is in demand are Astronomy, Ceramics and Plastics, Computers, Electronics, Engineering, Health and Safety, Health Service, Laser Optics, Nuclear Power, Patent work, Seismic Exploration and Technical Journalism.

