



Physics

Level 3: AS / A2

OCR

PROGRAMME AIM: The course aims to provide an engaging and stimulating experience of Physics. Students are encouraged to develop their own concepts and study methods, under the guidance of an experienced teacher, and to explore and question fundamental scientific ideas and technologies which have puzzled some of the greatest scientists and natural philosophers in history.

ENTRY REQUIREMENTS / SUITABILITY: GCSE Science Core and Additional or GCSE Physics Grade C or above, preferably grade B. Mathematics grade B. AS and A2 Physics are the ideal courses for anyone interested in why the universe is the way that it is and how the universe works, from the smallest subatomic particles to the furthest reaches of space. Physics students should not be content with the usual "because it does" sort of answers, instead they should enjoy thinking for themselves and discussing and even arguing about complex ideas and issues.

CONTENT:

- Module 1:** Development of Practical Skills in Physics
- Module 2:** Foundations of Physics
- Module 3:** Forces and motion
- Module 4:** Electrons, waves and photons
- Module 5:** Newtonian world and astrophysics
- Module 6:** Particles and medical Physics

LEADS TO:

This course provides a sound basis from which to progress to university courses in Physics and Engineering, Architecture, Materials Technology, Design and Production, Finance, Telecommunications, Medicine, Astronomy and Astrophysics, Meteorology, Archaeology, Optics and Education.

ASSESSED / EXAMINED:

Two AS examinations: Breadth in Physics, Depth in Physics. These examinations comprise questions covering all of the AS Physics course, including practical skills.

Three A2 examinations: Paper 1: Modelling Physics; Paper 2: Exploring Physics, and Paper 3: Unified Physics. These examinations comprise questions covering all of the A2 Physics course, including practical skills.

There is also the **Practical Skills Endorsement**, for which students carry out and evaluate experimental investigations throughout the AS and A2 course. Although this work does not contribute to the final A Level grade, it is a requirement of the course.