KS5 | Curriculum
Physics

THE WALDERSLADE & GREENACRE SCHOOLS PARTNERSHIP

Qualification type / Exam Board

A-level / OCR

What will I learn about?

In OCR A-Level Physics A, you will build your understanding of the laws and principles that explain the physical world, from subatomic particles to the structure of the universe. You will study foundations in physics, forces and motion, electrons, waves and photons, the Newtonian world and astrophysics, particles and medical physics. The course develops mathematical, problem-solving and analytical skills, alongside practical laboratory techniques. You will carry out investigations, analyse data, evaluate methods and apply physics to real-world situations.

How is my work assessed?

- Modelling physics – Written examination • 2 hours 15 minutes • 100 marks • 37% of A-Level
- Exploring physics – Written examination • 2 hours 15 minutes • 100 marks • 37% of A-Level
- Unified physics – Written examination • 1 hour 30 minutes • 70 marks • 26% of A-Level
- Practical Endorsement in Physics – Non-exam assessment. Practical skills are assessed throughout the course and the endorsement is reported separately.

What should I consider before starting this subject?

A-Level Physics is a mathematically demanding course. You should enjoy solving problems, applying equations and using mathematical techniques to explain physical phenomena. You will need confidence with algebra, graphs, proportional reasoning, units and rearranging equations, as well as a willingness to work through unfamiliar problems. Practical work is an important part of the course, and you will be expected to collect and analyse data, consider uncertainties and evaluate experimental methods. Regular independent study and practice are essential.

Why is this course useful and what might it lead to?

Physics is a highly valued qualification that can lead to further study and careers in engineering, physics, astronomy, computing, architecture, medicine, electronics, energy, finance and many other technical fields. It provides a strong foundation for university courses in physics and engineering, and develops transferable skills in logical reasoning, mathematical modelling, data analysis and problem-solving. The course can also support progression into apprenticeships and careers involving technology, research and innovation.

Entry requirements

- Grade 7-7 Combined Science
- Grade 6 in Maths

Where can I find more information?

Speak to Miss Delf-Smith/Mr Lawrence-Wenz or visit the OCR A-Level Physics A qualification page: https://www.ocr.org.uk/qualifications/as-and-a-level-gce/physics-a-h156-h556-from-2015