

Overview

A Level Physics is a fascinating and challenging area of study. You will develop and deepen your knowledge of familiar topics such as electricity, light and motion and be introduced to new areas such as particle physics and quantum world.

Awarding Organisation: AQA

Minimum course requirements: GCSE Grade 5-5+ in Trilogy Science (Higher Tier) or 5+ in Physics, and GCSE Grade 6 in Mathematics. Students should also study A Level or L3 Maths

More information: Miss J Fathers

Curriculum and assessment

YEAR 12

During this year of study, students will gain an excellent basis for future study. We begin by studying all the recent and exciting developments in particle physics and the quantum nature of light. You will then delve deeper into more familiar topics such as electricity, mechanics, materials and waves.

YEAR 13

During this year of study, students will develop many of the themes encountered in Year 12. You will begin by studying more advanced mechanics such as circular motion and compare gravitational, electric and magnetic fields. Towards the end of the course, you will further your knowledge of nuclear physics and thermal physics. However, you may specialise for your final unit with a choice of astrophysics, medical physics, applied physics or turning points in physics which will enable you to link into your aspirations for the future.

ASSESSMENT

Three 2 hour examinations. Compulsory Practical Endorsement.

Skills that will be developed

Physics is a practical subject and you will quickly learn how to use a wide range of electrical equipment and how to make accurate and precise measurements. Your numeracy skills will be finally honed and it is expected that you will develop a real appreciation of the meaning of the numbers you are using and applying. You will be required to solve practical and theoretical problems so it is important that you are ready to try out different solutions and be ready to think.

Post 18 opportunities

Our physicists go on to study a whole variety of courses at university from pure science to applied areas such as Engineering, Telecommunications and Meteorology.

Destinations of students in the last two years:

Imperial College – Electrical Engineering

Leicester University – Medicine

Oxford University – Physics

Manchester University – Mechanical Engineering

Cambridge University – Materials Science

Sussex University – Physics with Astrophysics

Lancaster University – Physics

Expenses

You will need to purchase a text book. We will endeavour to attend at least one series of lectures to supplement the course.