

A level

Physics

Physics is the branch of science concerned with the nature and properties of matter and energy. The subject matter of physics includes mechanics, heat, light and other radiation, sound, electricity, magnetism, and the structure of atoms. All modern technologies owe their existence to the fundamental research that physicists carry out in these areas. As a physicist you will study the natural universe and try to uncover why objects exist and behave as they do. If you are good at science and mathematics, and a logical thinker, physics could offer the opportunities you are looking for.

Entry requirements

- Grade 6 in GCSE Combined Science or Level 6 in GCSE Physics
- Grade 6 in GCSE Mathematics
- Grade 5 in GCSE English Language

Course breakdown

In Year 12 you will study a range of topics including:

- Measurements and their errors
- Particles and radiation
- Waves
- Mechanics and materials
- Electricity

In Year 13 you will build on your First year of study exploring more advanced topics including:

- Further mechanics and thermal physics
- Fields and their consequences
- Nuclear physics
- and one of Astrophysics, Medical Physics or Turning Points in Physics

How will the course be assessed?

Although you will not be entered for a formal examination at the end of Year 12, you can expect to undertake a number of interim assessments so that you can keep track of your progress and your teacher can identify your strengths and those areas in which you might require further support and guidance. In addition to these ongoing assessments you will also have formal internal examinations where your performance will be used to consider suitability for progression into Year 13 and predicted grades for UCAS or other applications.

At the end of Year 13 you will be entered for the A level in Physics. This will assess the content and skills covered in both years of study.

- Exam: Paper 1 – 2 hours – 34% of A level
- Exam: Paper 2 – 2 hours – 34% of A level
- Exam: Paper 3 – 2 hours – 32% of A level

You will also be required to demonstrate competence in a set of practical techniques and procedures in order to achieve the Practical Endorsement required for further study of Physics at University. As part of the course, you will complete a wide range of practical activities to ensure that you have the best chance of success in meeting the requirements of the Practical Endorsement.

Where can the course lead?

This course offers an excellent platform for those wanting to go to university, particularly if you wish to study in the fields of astrophysics, biophysics, chemical physics, cryophysics (cryogenics), crystallography, electromagnetism, electronics, fluid dynamics, geophysics, high energy (plasma) physics and high pressure physics. These are just a few of the many different branches in the field of Physics. This subject does not only act as a root into scientific study; some students take it as a means to enter other disciplines such as mathematics, engineering, manufacturing, business and finance. Other students take Physics to enhance their applications onto popular university courses which are traditionally oversubscribed.

