

Physics

CAMBRIDGE IGCSE

Studying Physics

Physics helps you to understand the technological world in which you live, and take an informed interest in science and scientific developments. You will learn about the basic principles of Physics through a mix of theoretical and practical studies. You will also develop an understanding of the scientific skills essential for further study at sixth form, skills which are useful in everyday life.

As you progress, you will gain an understanding of how science is studied and practised, and become aware that the results of scientific research can have both good and bad effects on individuals, communities and the environment.

Physics is accepted by universities and employers as proof of essential knowledge and ability. As well as a subject focus, the physics syllabus enables learners to:

- Better understand the technological world, with an informed interest in scientific matters
- Recognise the usefulness (and limitations) of scientific method, and how to apply this to other disciplines and in everyday life
- Develop relevant attitudes, such as a concern for accuracy and precision, objectivity, integrity, enquiry, initiative and inventiveness
- Develop an interest in, and care for, the environment
- Better understand the influence and limitations placed on scientific study by society, economy, technology, ethics, the community and the environment
- Develop an understanding of the scientific skills essential for both further study and everyday life



What will I learn?

The Physics topics are as follows:

General physics

Length and time • Motion • Mass and weight • Density • Forces • Momentum • Energy, work and power • Pressure

Thermal physics

Molecular model of matter • Properties and temperature • Thermal processes

Properties of waves

General wave properties • Light • Electromagnetic spectrum • Sound

Electricity and magnetism

Magnetism • Electrical quantities • Electric circuits • Digital electronics • Dangers of electricity • Electromagnetic effects

Atomic physics

The nuclear atom • Radioactivity

How will I be assessed?

Triple Award candidates sit two Extended papers and an Alternative to Practical paper in each of the three sciences (nine papers in total)

Paper 2

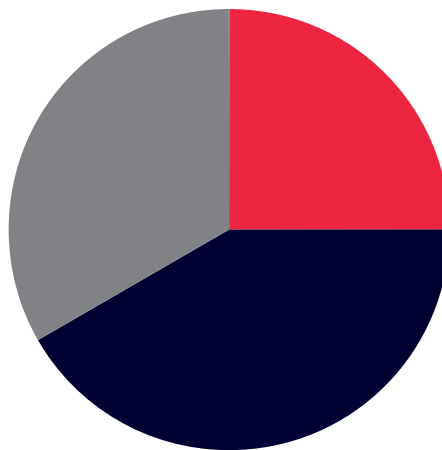
45 minutes – multiple-choice paper consisting of 40 items of the four-choice type.

Paper 4

1 hour 15 minutes – written paper consisting of short-answer and structured questions.

Paper 6

1 hour – Alternative to Practical. A written paper assessing practical skills.



THREE - Written Papers

What can I do after I've completed the course?

Cambridge IGCSE Certificates are general qualifications that will enable you to progress either directly to employment, or to proceed to further qualifications.

Candidates who are awarded a level 5 or above for Physics or Coordinated Science are well prepared to follow the A Level Physics or IB Physics courses.