

Physics

A LEVEL - AQA

What are the aims of the course?

During the course students are encouraged to:

- Develop their interest in and enthusiasm for the subject, including developing an interest in further study and careers associated with the subject
- Develop competence and confidence in a variety of practical, mathematical and problem solving skills
- Understand how society makes decisions about scientific issues and how the sciences contribute to the success of the economy and society
- Use theories, models and ideas to develop scientific explanations
- Use knowledge and understanding to pose scientific questions, define scientific problems, present scientific arguments and scientific ideas
- Analyse and interpret data to provide evidence, recognising correlations and causal relationships
- Consider ethical issues in the treatment of humans, other organisms and the environment
- Evaluate the role of the scientific community in validating new knowledge and ensuring integrity

What does it involve?

Physics, like all sciences, is a practical subject. Throughout the course, students will carry out set practical activities. These practical assessments will give students the skills and confidence needed to investigate the way things behave and work. It will also ensure that if students choose to study a Physics-based subject at university, they will have the practical skills needed to carry out successful experiments in their degree.

- Year 1 topics include: Measurements and their Errors; Particles and Radiation; Waves; Mechanics and Materials; Electricity
- Year 2 topics include: Further Mechanics and Thermal Physics; Fields and their Consequences; Nuclear Physics; Turning Points in Physics

How is it assessed?

The A Level course lasts two years with three examinations at the end of the second year. Although there is no coursework, students' performance during practical lessons will be assessed throughout the course.

Paper 1

Written examination (combination of short, long and multiple choice questions)

60 marks

2 hours

34% of A Level

Paper 2

Written examination (combination of short, long and multiple choice questions)

60 marks

2 hours

34% of A Level

Paper 3

Written examination (combination of long and short answer questions on practical experiments, data analysis and the option topic)

80 marks

2 hours

32% of A Level



Are there any specific entry requirements?

A Level Physics builds on GCSE Science and Maths. As a result, students need good GCSE results from both; ideally a Level 6 or above. Written communication is also important and students need to be a strong writer.

Why is it a useful qualification?

Physics is a rigorous and well respected qualification which is highly valued by universities. Many students will go on to study Science, Medicine, Engineering or Maths at university, but others choose Physics as an interesting and challenging complement to their other subjects. A qualification in Physics is essential for many branches of engineering and recommended for courses in Pure Science, Electronics, Veterinary Science and Medicine.

Physics is also classed as a facilitating subject by the Russell Group that represents 24 leading UK Universities. Facilitating subjects are the subjects most commonly required or preferred by universities to get on to a range of degree courses. They can help students keep their options open when choosing a degree and many of the top universities will ask you to have at least one A Level in a facilitating subject when you apply.

Physicists explore the fundamental nature of almost everything we know of. They probe the furthest reaches of the earth to study the smallest pieces of matter. Join them to enter a world deep beneath the surface of normal human experience