



CITY OF LONDON ACADEMY
ISLINGTON

WHERE STUDENTS SUCCEED

Physics

A Level Physics:

Why choose this subject?

Ever wanted to know how the Universe works? Physics is the study of how and why the Earth and beyond work the way it does. Across two years, you'll cover a wide range of topics with many real world applications, from the best way to kick a football to how to improve your Wi-Fi signal.

The course is founded upon a solid mix of mathematical and practical skills, to prepare you best for further study or other routes and help you see your day to day in a completely different light. If you've ever seen something and thought to yourself "why..." then Physics is for you.

Who takes this course?

Physics students start from a wide range of backgrounds and interests. The skills you will learn are equally applicable in Engineering, Medicine, Law or Linguistics.

Where will success take me?

Physics can lead to many of the traditional STEM (Science, Technology, Engineering and Mathematics) careers and making a difference to modern Science, but the analytical and logical skills will serve you well in a whole host of careers, from programming and architecture to banking and research.

What Will I Be Studying?

The topics across the two years interlace and support each other, covering areas including mechanics, materials, thermodynamics, waves and optics, particles, quantum effects, nuclear physics, fields and electricity. There is also an option unit taught in the second year that could cover an area such as medical physics or astrophysics.

There are also 12 assessed practicals over the course of the two years which will contribute to your final grade.

Will it fit in my life?

Students who take Physics often also study from a wide range of subjects, though Mathematics is highly recommended, including Psychology, Sociology, Biology, Science in Society, Chemistry, Applied Science, Languages, Health & Social Care, Critical Thinking and Environmental Studies.

What skills will I learn?

The Physics A Level course helps students develop a number of skills:

- How to logically work through problems
- How to assemble data and assess it
- How to investigate facts and use deduction
- How to put over your point of view fluently
- How to work as a team to achieve results

Entry Criteria

At least five grades 9-5 GCSEs including English and mathematics.

- **If taking combined science GCSE – grade 7-6 or above**
- **If taking triple science – grade 6 or above in physics GCSE**
- **Grade 6 or above in mathematics GCSE**

How will I be assessed?

You will sit 3 papers at the end of Year 13

Paper 1

What's assessed:

- Measurements and Errors
- Particles and Radiation
- Waves and Electricity
- Mechanics and Materials

How it's assessed:

- written exam: 2 hours
- 85 marks
- 34% of A-level
- 65 marks of short and long answer questions and 25 marks multiple choice questions

Paper 2

What's assessed:

- Further Mechanics and Thermal Physics
- Fields
- Nuclear Physics

How it's assessed:

- written exam: 2 hours
- 85 marks
- 34% of A-level
- 65 marks of short and long answer questions and 25 marks multiple choice questions

Paper 3

What's assessed:

- Option Unit
- Practical skills

How it's assessed

- written exam: 2 hours
- 80 marks
- 32% of A-level
- 45 marks of questions on practical techniques and data analysis and 35 marks of short and long answers on option units