

A Level Physics



➤ Introduction

Are you curious about the fundamental laws that govern our universe? Do you wonder how everything from the smallest subatomic particles to the largest galaxies operate? Then you've come to the right place!

A-Level Physics is a challenging yet incredibly rewarding subject that will deepen your understanding of the physical world around us. This course, following the AQA specification, is designed to ignite your scientific curiosity, develop your problem-solving skills, and equip you with a profound appreciation for the elegance and power of physics.

➤ What will I learn?

Throughout this two-year journey, we will delve into a fascinating array of topics, building from foundational concepts to cutting-edge theories.

Year 1 will establish your core understanding, covering areas such as:

- Measurements and their errors: Mastering the language of physics.
- Particles and radiation: Unveiling the building blocks of matter and the forces that bind them.
- Waves: Exploring the properties and applications of light and sound.
- Mechanics and materials: Understanding motion, forces, energy, and the behaviour of different substances.
- Electricity: Investigating circuits, current, voltage, and resistance.

Year 2 will expand your horizons, taking you into more advanced and abstract concepts, including:

- Further mechanics and thermal physics: Delving deeper into momentum, oscillations, and the fascinating world of heat and temperature.
- Fields: Exploring gravitational, electric, and magnetic fields and their profound influence.
- Nuclear physics: Unlocking the secrets of the atomic nucleus, radioactivity, and nuclear energy.
- Turning Points in Physics.

➤ How will I be assessed?

Component	Type	Duration	Weight
Paper 1: Particles, forces and mechanics, electricity	Exam	2hrs	34%
Paper 2: Thermal, fields, nuclear	Exam	2hrs	34%
Paper 3: Practical Skills and Optional Unit	Exam	2hrs	32%

Key Information:

The AS exam is sat at the end of year one, and is the year one content examined in two papers.

Questions for all exams are a mix of multiple choice and longer explanations and calculations

➤ Other subjects?

Mathematics is the obvious choice, computing will be playing an increasing role in most physics jobs.

➤ Future Careers

A strong A-Level in Physics provides a foundation for a wide range of university degrees and highly sought-after careers. It develops crucial transferable skills like analytical thinking, problem-solving, advanced mathematical ability, critical thinking, and data analysis.

It leads directly into degrees in Physics (e.g., Theoretical Physics, Astrophysics, Medical Physics), All branches of Engineering (e.g., Mechanical, Electrical, Aerospace, Civil), Mathematics and Computer Science (e.g., Data Science, AI). Other sciences (e.g., Chemistry, Geophysics), technology & IT (e.g., Software Development, Data Analysis), finance & Business (e.g., Quantitative Analyst, Actuary) and research & development across various industries.

In short, A-Level Physics is a versatile and highly respected qualification that opens doors to diverse and rewarding opportunities in a rapidly evolving world.

➤ Course Information

Course Code - AS 7407, A Level 7408D
Examination Board - AQA