

Physics

A Level (AQA)

A level Physics is designed to encourage students to develop: excellent problem-solving and experimental skills which are highly transferable, and flexibility to study a wide range of topics that leads to careers from medical physics to engineering or particle physics.

Entry Requirements

- **Minimum Standard:** Five or more grades at 4+ in GCSE or equivalent, including English and Maths.
- **Additional Criteria:** Minimum standard with a 6+ in Physics or a 6-5 in combined science. A 6+ in Maths is also required.

What will you learn?

Physics at A Level covers mechanics, thermal physics, particle physics and astronomy among other topics. The AQA specification provides numerous opportunities to use practical experiences to link theory to reality and will equip you with the essential practical and theoretical skills you need to pursue a wide range of career options. Core content includes Measurements and their errors fields, Electromagnetic Radiation, Quantum Phenomena, Waves, Mechanics, Materials, Electricity, Further Mechanics, Thermal Physics, Gravitational and Electric Fields, Capacitors, Magnetic Fields and Nuclear Physics. Options in Year 2 include Astrophysics, Medical Physics, Engineering Physics, Turning points in Physics and Electronics.

How will you learn?

You will learn through a mix of classroom theory, hands-on practical experiments, and independent problem-solving.

- **Classroom Lessons:** Build core mathematical and conceptual understanding through teacher-led explanations and worked examples.
- **Practical Endorsement:** Complete 12 required practical activities to learn lab techniques, use equipment like micrometer screw gauges and set squares, and calculate experimental uncertainties.
- **Independent Study:** Practice multi-step calculations, memorize key definitions, and use active recall tools like flashcards.
- **Past Paper Practice:** Apply learned formulas to unfamiliar contexts and drill exam technique.

How will you be assessed?

34%

Paper 1 – 34%
Written exam: 2 hours.

34%

Paper 2 – 34%
Written exam: 2 hours.

32%

Paper 3 – 32%
Written exam: 2 hours.

There is also a non-exam Practical Endorsement that you complete throughout the course. In addition to the written papers, your teacher will assess your skills during at least 12 required practical activities.

Where will it take you?

This is a traditional academic route which unlocks opportunities in Physics and a full range of engineering courses in university. It is a fact that Physics graduates are amongst the most highly sought after and the best paid after completing their degrees. This course is equally suitable for male or female students.

Who should you talk to?

Please speak to Miss Smith or email:
sarah.smith@thebourneacademy.com