

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.

## Topics covered

AS Physics lasts one year, with exams at the end. A-level Physics lasts two years, with exams at the end of the second year. The table below shows the topics covered in each year.

AS and first year of A-level	Second year of A-level
Measurements and their errors	Further mechanics and thermal physics
Particles and radiation	Fields
Waves	Nuclear physics
Mechanics and energy	Plus <b>one</b> option from the following – ask your teacher which is offered at your school or college
Electricity	Astrophysics
	Medical physics
	Engineering physics
	Turning points in physics
	Electronics

## Exams

There is no coursework on this course. However, your performance during practicals will be assessed.

There are three exams at the end of the two years for A-level, all of which are two hours long. At least 15% of the marks for A-level Physics are based on what you learned in your practicals.

The AS has two exams at the end of the year. Both are 1 hour 30 minutes long.

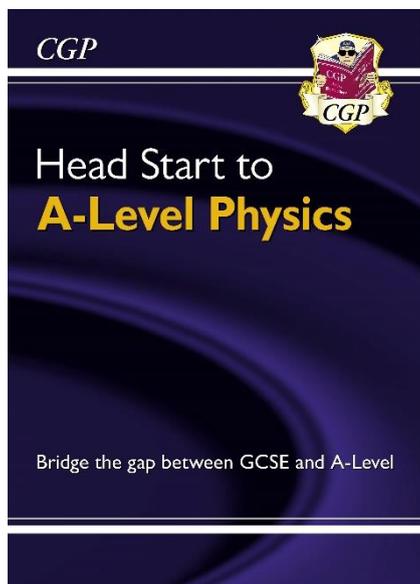
## Practicals

Physics, like all sciences, is a practical subject. Throughout the course you will carry out practical activities including:

- investigating interference and diffraction of laser light
- measuring acceleration due to gravity
- investigating systems that oscillate
- investigation of the links between temperature, volume and pressure
- safe use of ionising radiation
- investigating magnetic fields.

These practicals will give you the skills and confidence needed to investigate the way things behave and work. It will also ensure that if you choose to study a Physics-based subject at university, you'll have the practical skills needed to carry out successful experiments in your degree.

## Summer Bridging Project



**Task 1:** Purchase **one large lever arch folder with dividers** and **one A4 small folder with dividers** along with a **pad of A4 paper**.

**Task 2:** Complete the *Head Start to A-Level Physics*. Please purchase one of these books and complete in an exercise book given to you. Available for £3.71 from Amazon or WHSmith. This bridging project will be **graded**, and this mark will go towards your **Unit 1 report** that is sent home in October.

**Task 3:** Be ready for September, tick off your first day checklist:

- Black Pen x 3
- Green Pen x 2
- Highlighters
- Pencil
- Ruler
- Rubber
- Calculator
- Mini White Board
- Mini White Board Pen
- A4 Folder with dividers
- Laptop/ Tablet
- Small A4 folder with dividers
- A4 Pad of lined paper
- Bridging project

Have a lovely summer and enjoy your bridging project.  
We look forward to teaching Physics to you in September.

Mr Armstrong and Mr Matthews