

# Physics

## Why choose Physics?

Advanced Level Physics is an important requirement for many areas of future study. In addition to scientific, engineering and environmental applications, Physics is becoming increasingly important in medicine in the treatment of cancer and non-invasive surgery. Physics is a challenging and enjoyable subject and requires sound mathematical and logical skills. Physics is the study of the fundamental laws of nature.

### Physics is at the heart of:

the beginning of the universe

black holes & neutron stars

scanning the brain

aerodynamics of aircraft

earthquakes

satellite images

machines smaller than a pinhead

and much, much more .....

It is also an exciting and challenging experience.

## What can I expect to learn?

During this course you will be studying: Particles, Quantum Phenomena and Electricity. Unit 2: Mechanics, Materials and Waves. Unit 3: ISA (Internally assessed experiment that is related to a physics-based visit or a case study of the application of physics).

Unit 4: Fields and further mechanics. Unit 5: Nuclear and Thermal Physics. Unit 6: Experimental Physics (Internal assessment of an experiment).

As there is no coursework, practical skills are assessed throughout the two years and there are 12 required practicals that must be carried out and recording in a lab book. To pass the practical element all lessons must be attended and recorded to a suitable standard and this appears as a separate mark along with your final grade.

## Where does this course lead?

Physics A Level is a very useful qualification and can lead to a very wide range of careers. This includes Applied Physics, Astrophysics, Geophysics, Material technology, Forensic science, Engineering, Meteorology and Medical Physics. Physics A Level is also complementary with intended careers in Medicine, Mathematics, Computing, Finance, Law, Accountancy and many more areas.

### Entry requirements:

#### Separate Sciences.

If you study separate Science you need a minimum **grade 6** in Physics.

Additionally you need at least **grade 6** in Maths.

#### Combined Sciences

You need a minimum **grade 66** overall in Combined Science and your Physics component must be minimum grade 6.

Additionally you need at least **grade 6** in Maths.

