



Physics is for the students who want to find out how the world works. It is a good match with maths and other sciences.

Entry Requirements:

Science 6/6

Maths 6

English 6

What could it lead to?

Whether you have ambitions to be an astronaut, study medicine or simply earn big money, choosing Physics as one of your A Level subjects can take you where you want to go.

Physics explores our world from the unseen dimensions of millionths of a metre to 14 billion light years - to the edges of the Universe. On the scale we live on, physics is at the heart of technology that changes our lives, bringing us heat, light and communication in ever more ingenious ways.

It has brought anti-matter to our hospitals and radioactivity into pharmacy. If you find yourself wanting to understand more deeply how stuff works, why we have phenomena like red skies at night or why space junk is a huge issue for our future, then Physics A level is for you.

We start the AQA course with a look at particle physics and we see how this field has led to new technologies in healthcare. From quantum physics we then return to a study of mechanics and an understanding of the forces, motion and energy that are involved in our modern transportation systems. Light is our probe for understanding the places we cannot reach, supernovae and neutron stars. We explore the nature of electromagnetic radiation and its wave and particle-like properties. All our technology depends on us being able to produce, send and utilise electrical energy. The first year of the course introduces the electrical circuits and the novel components that lie behind our tech-savvy lives.

In the second year you take mechanics further and explore motion in two dimensions: circles and oscillations. You will examine motion close to the speed of light and study the outcomes of special relativity. The work on motion is then applied to particle detectors and mechanical and electrical devices. The course looks at the theories of gases, an area of physical chemistry that enables chemical engineers to design industrial systems, and helps us understand how stars are formed.

Check out the following sites for more information.

Institute of Physics <http://www.iop.org>

The AQA Examiners <http://www.aqa.org.uk>

