

# Physics

Exam Board: OCR



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## Course Summary

In A Level Physics you will acquire fundamental practical skills. Experiments play a large part in lessons and are rooted in theory and the analysis of empirical data. You will be introduced to important conventions and ideas that permeate physics and look at the physical quantities, S.I. units, scalars and vectors that help physicists to effectively communicate their ideas within the scientific community.

You will learn how to model the motion of objects using mathematics, understand the effect forces have on objects, consider the important connection between force and energy, appreciate how forces cause deformation and understand the importance of Newton's laws of motion. You will be introduced to the key ideas of quantum physics and learn about electrons, electric current, electrical circuits, wave properties and electromagnetic waves. You will appreciate how scientific ideas of quantum physics developed over time and their validity rested on the foundations of experimental work.

You will also study the impact of Newtonian mechanics, learning about thermal physics, circular motion, oscillations, gravitational field, astrophysics and cosmology. For those wishing to have a greater understanding of how the world works, then A Level Physics is for you.

## Entry Requirements

A Grade 6 in GCSE Physics or at least a 6-5 in Combined Science is required. Students should also have a Grade 6 Mathematics and are encouraged to take A Level Mathematics alongside Physics.

## Course Assessment

This is a linear course. This means that students opting for an A Level in this subject will be committing to a two-year linear course, with all units examined at the end of Year 13.

## Where might it lead?

A Level Physics is a universally respected and can lead to a multitude of courses and careers including most types of engineering, architecture, computing, scientific journalism, cybernetics, astronomy, medical physics, education, transport, communications, as well as careers in medicine, law, veterinary science and teaching.



“ Physics changes how you view the world and explains why things work the way they do. It gives you the tools to solve complicated problems. MEGAN ”