



Course Overview:

A level Physics attempts to make sense of the world using logic, evidence and mathematics. This course has a strong practical element, including analysis of errors, as well as looking at minute particles that make the whole universe possible. There is no topic too big, or too small, that physics cannot explain.

Topics covered

A level Physics lasts two years, with exams at the end of the second year. The table below shows what you'll learn in each year.

TEACHERS SAY...

Physics explains everything, from the smallest particle interactions to the explosion of stars. Many of the topics you will have studied at GCSE, however A-level adds the extra real world complications such as neutrinos, gravitational pull of the moon and the resistance of the battery itself.

YOUR NOTES

First year of A level	Second year of A level
Measurements and their errors, materials physics, particles and radiation	Gravitational fields, electric fields, magnetic fields
Waves, EM radiation and quantum phenomena, electricity	Further mechanics, AC electricity, capacitors, radioactivity, nuclear energy, thermal physics
Mechanics, momentum, circular motion	Rotational dynamics, thermodynamics and petrol engines

A level Physics

Examination Board:



Teacher contact:

Mr Cardus
mcardus@chichesterfreeschool.org.uk

Entry requirements: Five 9 to 4 (A* to C) with a minimum 6 (B) in Science and Maths

Type of Assessment:

There is no coursework on this course. However, your performance during practical 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 practical.

This course goes well with:
 Sciences and Maths

Possible degree options

According to bestcourse4me.com, the top six degree courses taken by students who have an A level in Physics are:

- Physics
- IT related
- Business
- Engineering
- Mathematics
- Teaching

What can I do now to help me prepare for my course?

Physics is an academically challenging course and most students do find the start of their A level study demanding. The key to success is, as ever, good preparation. How can you prepare? You need to be comfortable with the basic Physics from your GCSE course. The following websites are useful to start to extend your knowledge prior to starting the sixth form.

http://www.cyberphysics.co.uk/index.html	An excellent site covering all of GCSE and A level physics with easy to understand guides.
http://www.physicsclassroom.com/	Comprehensive physics website started by a teacher covering forces, motion and optics, waves and electricity. Lots of animations, simulations and other handy learning tools.
http://www.school-for-champions.com/physics.htm	Lesson notes on many physics topics presented in a straightforward manner. Quizzes at the end of each section focus thoughts and give you an idea of how much you understand
http://www.s-cool.co.uk	A level Physics revision. Guides and question banks covering Atomic structure, Electromagnetic waves, Kinetic Theory and many more Physics A level topics.
https://www.khanacademy.org/#Physics	An impressive collection of simple and clearly explained video tutorials about a range of physics topics (as well as maths, chemistry and more) suitable for secondary school level students. Make sure you have your sound turned on

Literacy, when you...

...read around the subject, and use several sources of information to answer problems.

Numeracy, when you...

..analyse data, Use equations to model answers, draw graphs and calculate answers

ICT, when you...

...use spreadsheets to model data and investigate patterns.

Possible Career options:

Physicists play a vital role in many technology-based industries, such as optoelectronics, nanotechnology, computing and renewable energy. Others work in investigating the universe; searching for extra-solar planets or looking for the remnants of the big bang. Some might apply their knowledge in healthcare (medical physics), studying the processes of the Earth (geophysics) or the climate (meteorology).

The knowledge and skills that studying physics develops are important in other areas as well. Predicting future market behaviour is vital in finance, and so a physicist's ability to model complex systems is particularly valued.