



What will Year 12 students learn and how many lessons will they have each week?

In Year 12 students have 4 hours per week of Physics lessons

As well as developing practical skills, we will study: The Foundations of Physics, Forces and Motion, Electrons, Waves and Photons, The Newtonian World and Astrophysics, Particles and Medical Physics.

What will Year 12 students need to do to get the most out of their lessons?

Students need to be prepared for hard work from the beginning of year 12. A-level Physics is a lot harder than GCSE, so you will need to be motivated. In lessons, maintain a positive attitude and ask when you need concepts clarifying. Listen to your teachers and ask questions. Physics is not about learning facts but applying your understanding to different situations, so be prepared to think deeply. Whilst doing practical work think about what you are doing, why and how the experiment could be improved.

How much homework will Year 12 students have in this subject?

We expect students to do a minimum of 4 hours per week of private study. This will be made up of homework tasks, writing up practical work, independent reading, and preparation work.

Which careers can this subject lead to?

Engineering, Architecture, Electrician, Geoscientist, Nuclear Engineer, Software Development, Astrophysicist.

Which other subjects complement this subject?

Physics has strong links with Maths, Chemistry, Further Maths, Economics and Computer Science. Perhaps less obvious are its links with Design Technology and Art, both useful if students are thinking about careers in Architecture.

Do I need to be good at Maths to study A-level Physics?

A level Physics requires strong mathematical skills. A level of mathematical knowledge beyond GCSE will be required and the vast majority of successful Physics students also study A level Mathematics.

What are the key differences between GCSE and A-level Physics?

It is important to recognise the step-up that is required from GCSE is very significant. It is assumed that all GCSE knowledge is secure and this base is very rapidly built upon, with more complicated ideas and theories introduced early in Year 12. Students must adapt to the demands of A-level by improving their independent learning skills and ensuring that a significant amount of out-of-class learning is being completed. It is expected that these skills are fully developed by the end of the first term. Mathematical skills are also key, and if not studying A-level mathematics it is expected that significant work will be carried out to ensure skills are at the required level.