



**For a future
without limits**
Ernest Bevin Sixth Form

A Level - Physics

Why study Physics? To understand and explain the Universe.

[Elon Musk](#), [Brian Cox](#) and [Richard Feynman](#) explaining why

What is Physics?

Physics is the natural science that studies matter, its motion and behavior through space and time, and the related entities of energy and force. Physics is one of the most fundamental scientific disciplines, and its main goal is to understand and explain how the universe behaves. Physics is a historical, fascinating and challenging subject. It encourages you to question how and why the world around you functions and to realise that things are not always what they seem.

For example: If the Earth is spinning you around at 30km/s (That's 67,000mph by the way), why don't you fly off the surface?



What will you study?

Paper 1: Modelling Physics—The mechanical Universe

Paper 2: Exploring Physics - Theoretical and particulate Physics

Paper 3: Unified Physics - Synthesis of theory

Assessment

The course is assessed through two 125 minute exam papers, and one 105 minute exam paper in Year 13. All with a mixture of multiple-choice, short and extended questions.

Assessment Objective

AO1	Demonstrate knowledge and understanding of scientific ideas, processes, techniques and procedures.
AO2	Apply knowledge and understanding of scientific ideas, processes, techniques and procedures: * in a theoretical context * in a practical context * when handling qualitative data * when handling quantitative data
AO3	Analyse, interpret and evaluate scientific information, ideas and evidence, including in relation to issues, to: * make judgements and reach conclusions * develop and refine practical design and procedures .

Getting ready to start your A Level Physics course

Task 1: Log in to your Kerboodle account and access the A level Sciences for OCR section. Go to the resources area and select A level Physics A for OCR and the sub-tab of GCSE to A-level transition from the left hand menu. Download the [student support sheet](#) to read and work through.

Task 2: Explore interesting areas of Physics by watching one or more of the short Ted Talks. [Physics TED talks](#). Write a summary of the talk in less than 250 words.

Task 3: Review your GCSE Physics revision guide. Look over modules P2, P5 and P6 in particular. These are mostly the ones we covered in Year 11. These modules are by far the biggest underpinning key principles for success in A-level Physics. If you don't know Newton, you don't know anything...

Task 4: Make sure you know how to re-arrange equations without using a formula triangle. A large proportion of assessment in Physics requires you to manipulate multiple equations simultaneously. If you don't know what why and how this works get learning—[Use this video link](#) as a start point.

EXTENSION TASK: You may wish to find out more about the course we will be following. Buy [OCR Physics A, By Mike O'Neill](#) This is an excellent book and is essential to support your studies. Additionally CGP offer an [A-Level bridging revision book](#) which is also particularly useful.

