

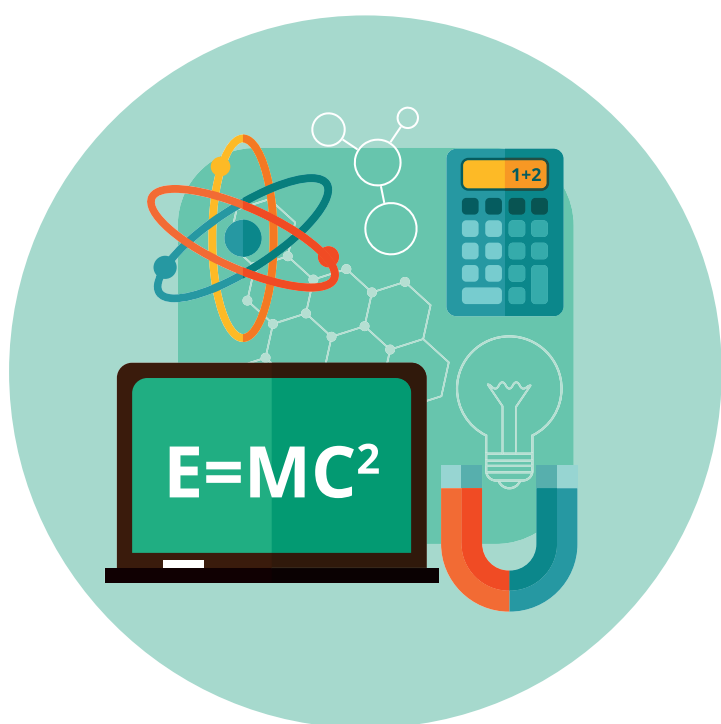
# Physics

## GCE Student Guide

Studying this new Physics specification at GCE will give you a much deeper understanding of this subject and an exciting insight into the latest developments. Studying physics deepens your understanding of the smallest detail of the world around you.

If you enjoy exploring the latest cutting edge developments and being at the forefront of finding solutions to some of the biggest questions facing us then this subject is for you.

There has never been a more exciting time to study this subject. This qualification is for students with an interest in science, and strengths in maths, chemistry or computer science at GCSE.



### Why study Physics?

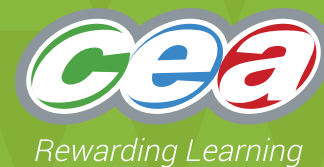
Physics is a highly regarded subject and develops many high order skills which are sought after by higher and further education and employers. The study of physics is essential in our modern world. Physics holds the answer to many of the biggest questions of our time. There has never been a more exciting time to be involved in physics: it is a period of huge innovation and discovery.

In the study of GCE Physics you will develop your practical skills and your teamwork, your communication and problem-solving skills, and your skills of analysis and investigation. You will also gain valuable experience in research and mathematical skills. If you are interested in the world around you, if you like solving problems and have enjoyed physics so far, you will benefit from deeper investigation into this subject.

This qualification is best suited to students who aspire to university level education. An A Level in Physics opens doors to many wide and varied career options: in medicine, sciences, research, teaching, nursing, dentistry, veterinary science, technology, forensic science and others.

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### What will I study?

Unit	Areas of Study
AS 1	Forces, Energy and Electricity
AS 2	Waves, Photons and Astronomy
AS 3	Practical Techniques and Data Analysis
A2 1	Deformation of Solids, Thermal Physics, Circular Motion, Oscillations and Atomic and Nuclear Physics
A2 2	Fields, Capacitors and Particle Physics
A2 3	Practical Techniques and Data Analysis

### How will I be assessed?

Unit	Assessment Description	Weighting
AS 1	<p><b>1 hour 45 mins</b> Students complete a written examination, consisting of compulsory short answer questions and some that require extended writing. <b>Externally assessed written paper</b></p>	<p>40% of AS  16% of A level</p>
AS 2	<p><b>1 hour 45 mins</b> Students complete a written examination, consisting of compulsory short answer questions and some that require extended writing. <b>Externally assessed written paper</b></p>	<p>40% of AS  16% of A level</p>
AS 3	<p><b>Two (1 hour) components</b> Students complete an externally assessed test of practical skills, consisting of <b>four</b> short experimental tests and a separate paper requiring the analysis of experimental results. <b>Externally assessed</b></p>	<p>20% of AS  8% of A level</p>
A2 1	<p><b>2 hours</b> Students complete a written examination, consisting of compulsory short answer questions and some that require extended writing. The questions have elements of synoptic assessment, drawing together different strands of the specification. <b>Externally assessed written paper</b></p>	<p>40% of A2  24% of A level</p>
A2 2	<p><b>2 hours</b> Students complete a written examination, consisting of compulsory short answer questions and some that require extended writing. The questions have elements of synoptic assessment, drawing together different strands of the specification. <b>Externally assessed written paper</b></p>	<p>40% of A2  24% of A level</p>
A2 3	<p><b>Two (1 hour) components</b> Students take an externally assessed test of practical skills, consisting of two experimental tests and a separate paper requiring the analysis of experimental results. <b>Externally assessed</b></p>	<p>20% of A2  12% of A level</p>

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### What can I do with a qualification in Physics?

A qualification in Physics opens up a diverse range of opportunities. Most students that study Physics GCE aspire to further study at university and beyond. Physics provides access to a diverse range of options at university, from manufacturing and medical occupations to computer gaming and the finance sector. Research shows Physics graduates can expect to earn more on average than graduates of most other subject areas.

Physics also complements a range of other subjects including maths and other sciences. Industry has created extensive numbers of science-related jobs at all levels, although many companies report they are unable to fill vacancies due to skill shortages.

‘A recent report by the Russell group of leading UK universities identified Physics as one of the subjects it recommends students take at A-level ... by choosing not to do Physics beyond age 16, girls are not only missing out on opportunities and career benefits that Physics offers, but the nation is missing out on the talents of young women.’

**Institute of Physics**

To find out more, visit the **CCEA Website** for the latest support and updates for this subject.

