

The Osborne Sixth Form

Physics



A Level

Specification: <https://www.ocr.org.uk/Images/171726-specification-accredited-a-level-gce-physics-a-h556.pdf>

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Why study A Level Physics?

A level Physics gives you the opportunity to explore the phenomena of the universe and to look at theories that explain what is observed. This subject combines practical skills with theoretical ideas to develop descriptions of the physical universe. You will learn about everything from kinematics to cosmology and many recent developments in fascinating topics, such as particle physics. If you are interested in the limits of space, the beginning of time and everything in between this is the subject for you. Physics is more than a subject – it trains your brain to think beyond boundaries.

What skills will I develop?

- Teamwork
- Technical ability
- Problem solving
- Organisation
- Numeracy
- Communication
- Attention to detail

What will I study?

Content is split into six teaching modules:

- **Module 1 – Development of practical skills in physics**
- **Module 2 – Foundations of physics**
- **Module 3 – Forces and motion**
- **Module 4 – Electrons, waves and photons**
- **Module 5 – Newtonian world and astrophysics**
- **Module 6 – Particles and medical physics**

Component 01 assesses content from modules 1, 2, 3 and 5.

Component 02 assesses content from modules 1, 2, 4 and 6.

Component 03 assesses content from all modules (1 to 6).

How will I be assessed?

Assessment Overview	
Modelling physics (01) 100 marks 2 hours 15 minutes written paper	37% of total A level
Exploring physics (02) 100 marks 2 hours 15 minutes written paper	37% of total A level
Unified physics (03) 70 marks 1 hour 30 minutes written paper	26% of total A level
Practical Endorsement in physics (04) (non exam assessment)	Reported separately (see Section 5g)

Where might it lead?

A Level Physics can lead towards opportunities to specialise more in many exciting areas, including:

- Atomic, molecular, and optical physics
- Geophysics
- Cryogenics
- Fluid mechanics
- Biophysics
- Nuclear physics

Some of the typical careers that students with Physics degrees pursue are acoustic engineer, aerodynamicist, aeronautical engineer, astronaut, pilot, biophysicist.

This subject is particularly under represented by females and there is a UK shortage of Physicists, so there is no better time to pursue a career in Physics.

What are the entry requirements?

Grade 5 in Physics and one other science.