# A Level Physics

*"Physics is the most fundamental and least forgiving of the sciences, laying bare the fabric of reality and pushing the boundaries of what we can measure, predict, and even imagine."*

***Lawrence M. Krauss***

Physics A-Level is the ultimate challenge for anyone who loves asking why and isn't afraid to work for answers. It's tough—no doubt about it—but it's also incredibly rewarding, unlocking secrets of the universe and giving you the tools to shape the future.

Think of it this way: Da Vinci dreamed of flying machines, and you'll learn the forces that make them soar. You'll dive into the wave-particle nature of light, uncover the mysteries of energy and motion, and explore the physics that powers everything from helicopters to smartphones.

Want to know what happens when atoms collide? Physics will take you there, from the fundamental building blocks of matter to the cutting-edge science of the Large Hadron Collider. It's challenging, yes—but if you're curious about how the universe works, there's no more exciting journey to take.

## Subject specific entry requirements

*In addition to the standard entry requirements, the following subject entry criteria should be met:*

- 6 in GCSE Physics if separate science or Grade 6-6 in Combined Science. 5 in GCSE Maths

## Exam Board

Pearson Edexcel Level 3 Advanced GCE in Physics (9PHO)

## Course Content

| **A level – two year course** | |
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| Content is split into 13 teaching modules<br>Module 1 – Working as a physicist<br>Module 2 – Mechanics<br>Module 3 – Electric circuits<br>Module 4 – Materials<br>Module 5 – Waves and particle nature of light<br>Module 6 – Further mechanics | Module 7 – Electric and magnetic fields<br>Module 8 – Nuclear and particle physics<br>Module 9 – Thermodynamics<br>Module 10 – Space<br>Module 11 – Nuclear radiation<br>Module 12 – Gravitational fields<br>Module 13 – Oscillations |
| **Examination 1**: Advanced Physics 1; 1h 45 written exam, 90 marks, 30% of A level<br>**Examination 2:** Advanced Physics 2; 1h 45 written exam, 90 marks, 30% of A level<br>**Examination 3:** General and practical principles in physics; 2h 45 written exam, 120 marks, 40% of A level<br>Practical endorsement in Physics non-exam assessment. | |

## This course will lead to:

With a Physics qualification, the career opportunities are numerous and varied. It's essential for degrees in engineering, astrophysics, and robotics, but also supports careers in computer science, finance, architecture, and renewable energy. Whether you dream of designing rockets, creating cutting-edge tech, solving climate challenges, or working in medicine, Physics gives you the skills to problem-solve, think critically, and innovate. It's your ticket to shaping the future in almost any field you choose.

*The most incomprehensible thing about the world is that it is comprehensible. A human being is a part of the whole, called by us "universe," a part limited in time and space." Albert Einstein*