

A Level Physics

The specification has been designed to be co-teachable with the standalone AS Level in Physics A qualification. The first four modules comprise the AS in Physics A course and learners studying the A level continue with the content of modules 5 and 6 in year 13.

The Data, Formulae and Relationships booklet in Section 5c will be available in examinations and learners are expected to become familiar with this booklet throughout the course.

A summary of the content for the A level course is as follows:

Module 1 – Development of practical skills in physics

- 1.1 Practical skills assessed in a written examination
- 1.2 Practical skills assessed in the practical endorsement

Module 2 – Foundations of physics

- 2.1 Physical quantities and units
- 2.2 Making measurements and analysing data
- 2.3 Nature of quantities

Module 3 – Forces and motion

- 3.1 Motion
- 3.2 Forces in action
- 3.3 Work, energy and power
- 3.4 Materials
- 3.5 Newton's laws of motion and momentum

Module 4 – Electrons, waves and photons

- 4.1 Charge and current
- 4.2 Energy, power and resistance
- 4.3 Electrical circuits
- 4.4 Waves
- 4.5 Quantum physics

Module 5 – Newtonian world and astrophysics

- 5.1 Thermal physics
- 5.2 Circular motion
- 5.3 Oscillations
- 5.4 Gravitational fields
- 5.5 Astrophysics and cosmology

Module 6 – Particles and medical physics

- 6.1 Capacitors
- 6.2 Electric fields
- 6.3 Electromagnetism
- 6.4 Nuclear and particle physics
- 6.5 Medical imaging