

## Physics A Level (AQA)

### Programme of Study:

#### Year 1 and year 2

##### Core Content

1. Measurements and their errors
2. Particles and radiation
3. Waves
4. Mechanics and materials
5. Electricity
6. Further mechanics and thermal physics
7. Fields and their consequences
8. Nuclear physics

##### Options

1. Astrophysics
2. Medical physics
3. Engineering physics
4. Turning points in physics
5. Electronics

#### Assessment

**Paper 1** Sections 1–5 and Periodic Motion (6.1) Written exam: 2 hours, 34% of A-level

**Paper 2** Sections 6.2 (Thermal Physics), 7 and 8

Assumed knowledge from sections 1 to 6.1

Written exam: 2 hours, 34% of A-level

**Paper 3** Section A Compulsory section: Practical skills and data analysis

Section B: Students enter for one of sections 9, 10, 11, 12 or 13

Written exam: 2 hours, 32% of A-level

#### Entry Requirements

6 in Physics if studying Triple Science at GCSE or G66 if studying Combined Science at GCSE and 6 in Maths.

#### Recommended Reading and Subject Enrichment

Students should engage with the following:

- A short History of Nearly Everything - Bill Bryson
- Why don't penguins' feet freeze? – NewScientist
- The Grand Design – Stephen Hawkin and Leonard Mlodinow
- Newton – Peter Ackroyd
- The Quantum Universe: Everything that can happen does happen – Brian Cox and Jeff Forshaw.

Students will get to attend the Summer Exhibition at the Royal Society where they get to meet research scientists.

#### Higher Education and Career Pathways

Students who study Physics often choose to pursue a career as an Aerospace engineer, Airline pilot, Architect, Engineer, Electrician.

## **Complimentary Subjects**

Maths, Chemistry, Biology