



## Advanced Level

# PHYSICS



### Course Aims:

The goal of physics is to understand how things work from first principles. It reveals the mathematical beauty of the universe at scales ranging from subatomic to cosmological. Physics is an exciting and challenging subject that will help you to build up your problem solving, research and analytical skills. It is concerned with the nature and properties of matter and energy including: mechanics, heat, light and other radiation, sound, electricity, magnetism, the structure of the atom and the physical nature of the universe.

Subject Information Sheet



## Course Content and Assessment:

Assessment is through three externally set papers:

### Paper 1

- Sections 1-5 and 6.1 (Periodic motion)
- Written exam: 2 hours
- 85 marks
- 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
- 85 marks
- 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
- 80 marks
- 32% of A-Level

## A Level Overview:

### 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

**The specialist option covered is Astrophysics.**

## Learning Methods:

Chemistry is taught through classroom discussion, class activities, assignments research, flipped learning, modelling and also by carrying out scientific investigations, some of which are required by AQA exam board. A level Physics is well resourced with AQA textbook, CPG revision guide, Kerboodle online resources and Seneca learning. All teaching resources, including powerpoint presentations as well as recorded lessons, which are shared with all students.

## Career Opportunities:

You'll be developing many key skills that are applicable to other subjects and we're very pleased to say a physics qualification is highly valued by universities and employers alike. Physics is an incredibly useful, if not essential, subject for the majority of STEM careers. A Level Physics is useful or an essential for a wide range of careers including all branches of engineering, careers in scientific research, medical physics, electronics, meteorology, astrophysics, environmental science and geophysics.

## Entry Requirements:

- Grade 5 or above in English and Maths.
- Grade 6 or above in Science.

## Staff Contacts

Mrs McCarthy - Assistant Headteacher Key Stage 5

Mrs Boyton - Student Development Champion Key Stage 5

Miss Biswas - KS5 teacher



Web link address:

[www.basildonupperacademy.org.uk/sixthform](http://www.basildonupperacademy.org.uk/sixthform)

Email: [Sixthform@basildonacademies.org.uk](mailto:Sixthform@basildonacademies.org.uk)