A LEVEL PHYSICS

Why choose Physics?

Studying Physics allows you to describe, explain and predict the world around you. A-level physicists leave BRGS equipped with the skills required for a huge range of careers, including problem-solving and analytical and mathematical skills. Physics is highly regarded by universities and future employers.

In choosing to study Physics at BRGS, you can be confident that you are giving yourself the opportunity to gain the best Physics grade possible. You will receive the teaching and support that you need to excel but with the level of care and friendliness that you are used to in your current school.

Physics aims to explain how everything works and studying A-level Physics reveals more of the story! We cover the topics that you have enjoyed GCSE in more detail and we bring in new, interesting and challenging topics such as particle physics, astrophysics, cosmology and quantum physics.

Classes, structure and results

You will be taught by highly-qualified teachers who will divide the content between them. There are 5 lessons each week. Set sizes vary, but typically an A-level Physics set will consist of 10 to 15 students.

Results are consistently **excellent** – as an example, this summer a superb **44**% of our Year 13 students achieved a grade **A*** or **A**, compared to 31% nationally.

Assessment

The course is assessed entirely by examination, comprising 3 two-hour assessments.

	Paper 1	Paper 2	Paper 3
Content	Year 12 topics and practical skills	Year 13 topics and practical skills	Optional topic (Astrophysics) and practical skills
Structure	Structured questions and multiple choice	Structured questions and multiple choice	Structured questions
Weighting	85 marks 34%	85 marks 34%	80 marks 32%

There is also a separate 'practical endorsement' award based on practical work seen in 12 require practicals across the year. This is a 'pass/fail' award which **all** of our students have successful achieved to date.

Course content

In Year 12, the topics studied are:

- Measurements and their errors
- Particles and radiation
- Waves
- Mechanics and materials
- Electricity

In Year 13, we cover:

- Further mechanics and thermal physics
- Fields and their consequences
- Nuclear physics
- Astrophysics

Where to next?

A-level Physics is highly regarded by universities and future employers due to the skills you develop. Physicists are thoughtful problem solvers, highly mathematical and logical thinkers. If you aren't now, you will be by the end of the course!

Physics can lead into a wide range of careers and there isn't a fixed trajectory for our students, but some of the course and careers which follow naturally include:

Degree Courses	Careers
• Physics • All forms of **engineering** • **Computer science** & programming • **Mathematics**	• All forms of **engineering** • A wide range of jobs in **finance** • **Research positions** • **Educational** roles

Entry Requirements

To study A level Physics at BRGS, you will need a **minimum** of:

- A grade **6** in Physics or a **6-6** in Combined Science
- A grade **5** in Mathematics

Studying A-level Maths is **not** a requirement, but can be beneficial; there is a 40% mathematical content to the A-level Physics course and there is a significant overlap between the topics studied in Physics and Maths. However, we teach the A-level maths required for students not choosing this as one of their other subjects.

Physics is one of the most challenging A-levels. Students will have to work hard to attain the top grades, but we support you throughout the course to achieve the best grades you can.

Comments from former students

Great atmosphere in lessons

Staff are always available for help

Lessons are fun, humorous and we get extra info beyond the spec

It's always challenging, never straight-forward or boring

Really interesting course