

# PHYSICS

AQA | 7408

Studying Physics will give pupils a wonderful insight into how all things work. Pupils will study the structure of the atom in terms of quarks and leptons and learn about the Large Hadron Collider.

## THE COURSE

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In this course pupils will learn about waves, including progressive waves, interference and diffraction. Pupils will find out more about force and energy in the context of collisions and explosions, circular motion and oscillations, electric, gravitational and magnetic fields, thermal physics and nuclear energy. Taking this course will enable pupils to understand this new world in which we live and help make sound and informed decisions. The course will appeal to all those who have a fascination for the workings of the world.

Modules include:

1. Measurements and their errors
2. Particles and radiation
3. Waves
4. Mechanics and materials
5. Electricity
6. Further Mechanics and Thermal Physics
- 6.1 Periodic Motion
- 6.2 Thermal Physics
7. Fields and their consequences
8. Nuclear Physics
9. Astrophysics

## REQUIRED SUBJECTS

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Pupils will need at least a grade 6 in GCSE Physics or in Combined (Trilogy) Science and a grade 6 in Mathematics.

## ASSESSMENTS

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- Paper 1 - Topics 1 to 5 and 6.1  
34% (2 hrs)
- Paper 2 - Topics 6.2 to 8  
34% (2 hrs)
- Paper 3 - Topic 9, Practical Skills, Data Analysis and Astrophysics  
32% (2 hrs)
- Practical Endorsement

## BEYOND THE COURSE

Physics provides qualification for entry into many courses, and most university courses regard Physics as a requirement for Engineering degrees. Physics graduates have skills that are in high demand in diverse sectors. These include skills relating to numeracy, problem-solving, data analysis and the communication of complex ideas, as well as a wider understanding of how the world works, on a scientific and human level.

Recent St George's pupils have gone on to study Civil Engineering at Manchester University and Electrical Engineering at Nottingham University. In 2016, a pupil won a place to study Engineering at the Georgia Institute of Technology in Atlanta, USA.