

PHYSICS (OCR)

“ Do you ever wonder why things are like they are? Why the universe exists? What makes the world go around? What is matter? If you have a logical mind and you want to know about everything from the smallest sub-atomic particle to the structure of galaxies then physics is for you. ”

Studying physics at King's involves a mixture of theory and practical work in first-rate, well equipped laboratories.

As a highly regarded A level, it enables not only scientific and engineering careers, but it is also prized for other courses such as business and law. Logical thinking is the core of the subject and this opens up more career opportunities than almost any other skill.

During the A level course you will get the chance to visit the world's largest scientific experiment, the large Hadron Collider at CERN, as well as other trips to university laboratories. In recent years we have visited Oxford, Bristol, Exeter and Bath. Be part of the adventure!

Physics is taught by enthusiastic specialist teachers, and has the excellent support of a designated technician. In the Sixth Form, pupils are taught in smaller classes. This allows teaching staff to help pupils expand their horizons, and better understand this fascinating and popular science.

The physics department at King's has always had a strong academic reputation, and this continues.

There are modern, well-equipped laboratories and very good resources. Pupils are actively encouraged to use the most up-to-date sources of information and equipment, such as PASCO data-loggers, to enhance the learning experience. Pupils have the opportunity to take part in the Physics Olympiad competition, Science Society activities and visits to lectures. There is an annual departmental trip to CERN near Geneva.

The relevance of physics to pupils' everyday lives and its importance to modern technological society is fundamental to the department's work. We also help pupils to understand how physics is involved in a wide variety of careers. Good physics graduates are highly numerate problem-solvers. They are particularly sought after in the rapidly developing sectors of quantitative finance, telecommunications, information technology and law.

Content and Assessment

This is a content-led approach to theory, yet it still offers a flexible approach. The specification is divided into topics, each covering different key concepts of physics. As pupils progress through the course they will build on their knowledge of the laws of physics, applying their understanding to solve problems on topics ranging from sub-atomic particles to the entire universe. For A level only, the Practical Endorsement will also support the development of practical skills.

Content is split into six teaching modules, with three examination papers at the end of the course.

Development of practical skills in physics; Foundations of physics; Forces and motion; Electrons, waves and photons; the Newtonian world and astrophysics; Particles and medical physics.



Annual trip to CERN

