Physics		Exam Board OCR
		Syllabus number H556

Physics

King's School

“Physics us really nothing more than a search for ultimate simplicity, but so far all we have is an elegant messiness.”

Bill Bryson

Course entry requirements
Grade 6 in GCSE Physics or two Grades 6 in Combined Science. Grade 6 or above in Mathematics is essential. It is recommended that students wishing to study Physics consider taking A-Level Mathematics.

Why should I study physics?
Physicists look for all the hidden laws that explain why all matter and energy in the known universe exists, where it comes from and how it behaves the way it does. Physicists use the laws they uncover to develop new materials, machinery, and technology to improve our lives and help us explore the universe further, from computers to telescopes and spacecraft. Physicists ask big questions, but they specialise in different areas and their work can be varied. For example, nuclear physicists' study tiny particles of matter to discover what the universe is made of, whereas astrophysicists' study some of the largest objects – stars, planets and celestial bodies. Many physicists also combine their work with the other sciences (chemistry and biology) to study things like meteorology (the atmosphere) and geophysics (the structure of the earth).

What does the course look like?
The course is split into 6 modules:

- Module 1: Development of practical skills in physics
- Module 2: Foundations in physics
- Module 3: Forces and motion
- Module 4: Electrons, waves and photons
- Module 5: Newtonian world and astrophysics
- Module 6: Particles and medical physics

There are 4 assessments:

- Modelling physics: 2 hours 15 minutes – 37% of A Level
- Exploring physics: 2 hours 15 minutes – 37% of A Level
- Unified physics: 1 hour 30 minutes – 26% of A Level
- Practical endorsement in physics: Non-exam Assessment

How will I learn?
The course features a wide range of teaching and learning approaches and methods, including practical work, interactive classroom study, group tasks, and individual study. There is potentially the chance to find out more about current research, through links with local universities or a visit to CERN in Switzerland if feasible.

What kind of things might the subject lead me to?
Physics is a useful subject for the majority of STEM (science, technology, engineering & maths) careers. You will find physicists everywhere, in industry, transport, government, universities, the armed forces, computer games companies, research labs and more. Physics is helpful for jobs that involve building and developing modern technologies, including engineering, astronomy, robotics, renewable energies, computer science, communications, space exploration, science writing, sports and games technology, research and nanotechnology.