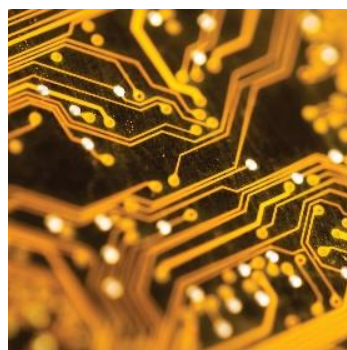
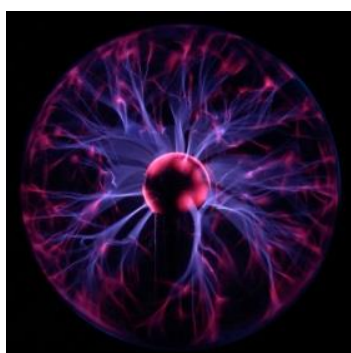


A LEVEL PHYSICS



WHY CHOOSE A LEVEL PHYSICS?

“Physics offers huge benefits to individuals and to society – opening doors, broadening horizons and driving innovation. It provides powerful and beautiful explanations about the workings of the world – explanations that have value and are applicable in a wide range of industries and research communities. Furthermore, it develops ways of thinking and reasoning that are rewarding and highly valued by employers in many sectors, from accounting to zoology to engineering, or law and medicine.”

Institute of Physics



Physicists are involved in an immense range of activities from developing materials for artificial hip joints to designing fusion reactors that emulate the sun. They need to be able to solve problems, think logically and adapt their ideas to new situations. The A Level Physics qualification is highly valued by many employers and Higher Education institutions. Physics is considered to

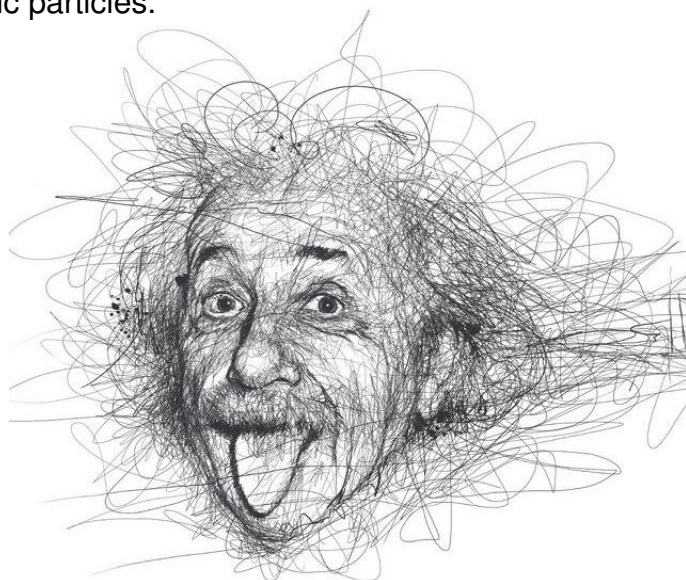
be a “facilitating subject” and there is a tremendous demand from universities for students with some Physics background.

WHAT WILL YOU STUDY?

Because Physics explains natural phenomena in the universe, it's often considered to be the most fundamental science. Physics encompasses the study of the universe from the largest galaxies to the smallest subatomic particles.

In the first year we cover topics including:

- Waves
- The quantum nature of light
- Stars
- Lasers
- Particle physics
- Circuits
- Material physics
- Mechanics



The second year of the course expands on these themes, looking at gravitational, electric and magnetic fields, orbits, resonance, particle accelerators, nuclear physics, radioactivity, medical physics and lots more besides. Each of the topics we study contain a huge range of applications from electrical engineering to architecture, space travel to medicine.

OUR APPROACH TO TEACHING AND LEARNING

Building on our reputation for excellent resources:

- We use high-quality learning materials including our unique workbooks (which we produce ourselves) and which have been rated as excellent by our students and by Ofsted inspectors.
- We have a flexible teaching approach and a range of online learning and assessment materials. We set high standards for our students with respect to completing homework and meeting deadlines.
- We have exceptional facilities and the latest physics equipment. We place a strong emphasis on allowing students to carry out practical activities, not just to develop their practical skills but to provide them with a full range of learning experiences.
- We choose optional topics (Medical Physics or The Physics of Sports) which allow learners to gain an insight into the applications of physics in the world of work.
- We are endorsed by Cambridge University's HE+ lecture programme and offer additional lectures to students on higher level topics such as Special Relativity, Acoustics, The Apollo Space Missions and Quantum Mechanics.

A LEVEL ASSESSMENT

Students will be assessed by three written examinations in the summer of year 2.

Component 1 – Newtonian Physics

Written examination: 2 hours 15 minutes

31.25% of qualification

Component 2 – Electricity and the Universe

Written examination: 2 hours

31.25% of qualification

Component 3 – Light, Nuclei & Options

Written examination: 2 hours 15 minutes

37.5% of qualification

In common with all other science A Levels, practical skills will be assessed by your teacher over the two years of the course. A Practical Endorsement certificate will be awarded separately alongside the A Level certificate. Performance in the practical skills will not affect the A Level grade awarded.

ENTRY AND SKILL REQUIREMENTS

What are the GCSE entry requirements for A Level Physics?

- Minimum of Grade 66 in Combined Science or Grade 6 in Physics and another science.
- Minimum Grade 4 in English and 6 in Maths.
- Students who are successful in A Level Physics have an average GCSE score of 5.5 and above.

Please bear in mind, there is high maths content in A Level Physics. It is therefore essential that you study one of the following supportive courses alongside A Level Physics in your first year: A Level Mathematics; A Level Further Mathematics; Level 3 Cambridge Technical in Engineering.

What if I don't meet the entry requirements for A Level Physics?

We offer an Engineering course that overlaps significantly with the A Level Physics syllabus. The Engineering course places emphasis on areas such as mechanics, electronics, and material physics, in some places expanding beyond the scope of A Level Physics. The Engineering course is assessed in a modular format in both year 1 and 2 with a combination of examined and coursework units.



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