

Shoeburyness High School

Sixth Form Subject Information

Physics

A-Level



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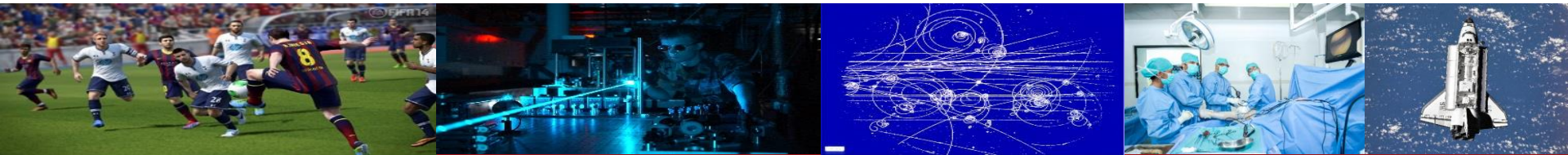


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Physics A-Level

From the smallest sub-atomic particles to the creation (and end) of the Universe, physicists attempt to explain everything around us.

The laws of physics underpin many areas of work...from engineering to medicine...from cosmetics to computer game design...the modern world is simply full of physics!



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Physics A-Level

The skills developed through studying Physics are in great demand from employers.

Physics is all about problem-solving, using logic and mathematical models, but it's also about being creative.

This makes Physics desirable in a huge range of careers, including engineering, medicine, architecture, finance, computing and more!



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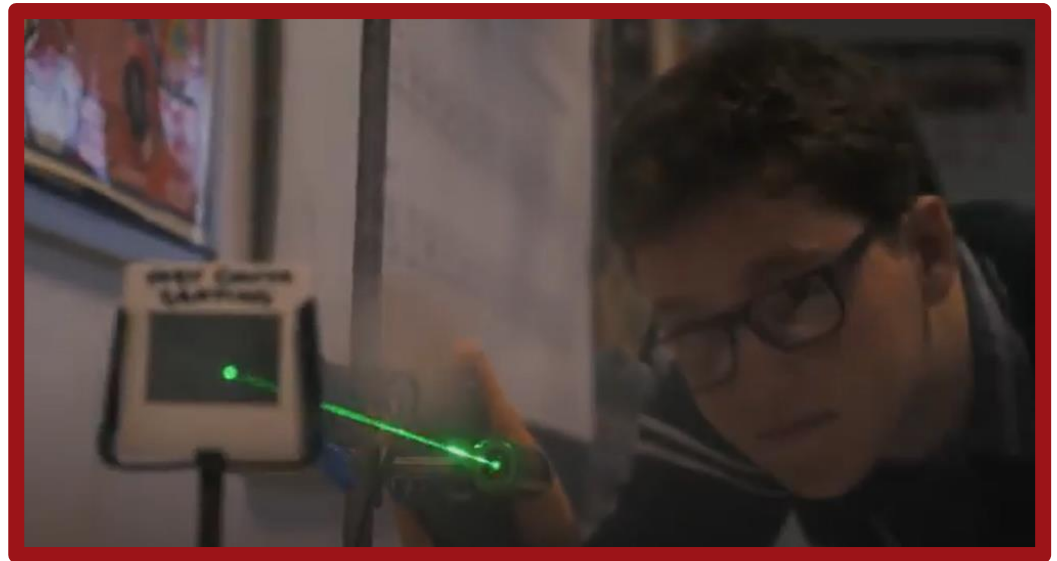
Physics A-Level

Subject Information

Topics covered follow on from GCSE Science.

Year 12

- Mechanics
- Electricity
- Waves & Radiation
- Quantum Physics
- Materials Science



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Physics A-Level

Subject Information

Topics covered follow on from GCSE Science.

Year 13

- Further Mechanics
- Fields & Forces
- Nuclear & Particle Physics
- Astrophysics & Cosmology
- Oscillations
- Thermodynamics



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Physics A-Level

Subject Information

Students complete 16 Core Practicals throughout the course, which cover the full range of topics studied.

These include:

- Studying waves using LASERS and emission spectra
- Dynamics investigations using the latest apparatus
- Investigating the photoelectric effect



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Physics A-Level

Subject Information

Exam board: Edexcel

Exam structure:

- Paper 1 (30%): 1 hour 45 minutes
- Paper 2 (30%): 1 hour 45 minutes
- Paper 3 (40%): 2 hours 30 minutes

Those who are not shocked when they first come across quantum theory cannot possibly have understood it.

Niels Bohr



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Physics A-Level

Entry requirements

Pathway 2 entry requirements: 5 GCSEs at Grade 5 and above

Subject entry requirements:

- GCSE Science (higher tier): **minimum** Grade 5-5 or
- GCSE Physics (higher tier): **minimum** Grade 5 and
- GCSE Maths (higher tier): **minimum** grade 5



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Physics A-Level

Career Progression

A-Level Physics is either required or recommended for careers in:

- Physics and other science disciplines
- Medicine
- Engineering
- Architecture or design
- Computer Science

And many more!

There is nothing that living things do that cannot be understood from the point of view that they are made of atoms acting according to the laws of physics.

Richard P. Feynman



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Physics A-Level

University progression

Students have gained top grades in recent years, progressing to University level study at prestigious Universities



Lyndon
Engineering (2019)
Edinburgh

Monde
Medicine (2020)
ARU

Alex
Physics (2020)
UEA

Ben
Physics (2019)
Nottingham

Angus
Physics (2019)
Kent

Moed
Computer
Science (2019)
City University



Jack
Physics (2020)
Royal Holloway

Ethan
Physics (2020)
Kent



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Physics A-Level

Contact Information

A-Level Physics Teachers:

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