

# A level Physics

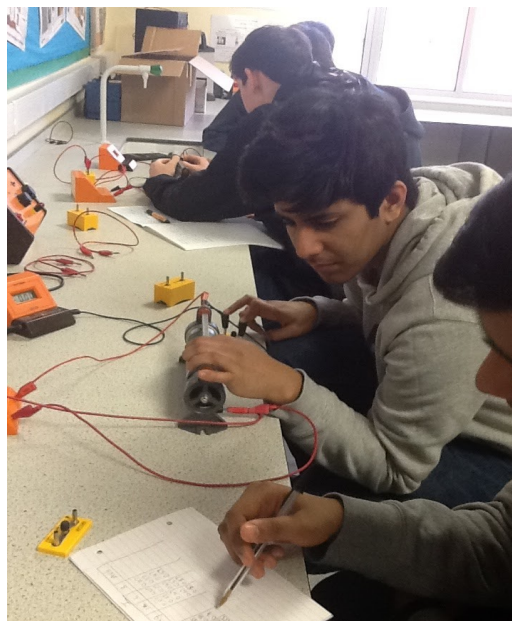
## at Conyers Sixth Form



Have you ever wondered what is inside the nucleus of an atom, how a star shines, where the Earth came from, or how an aeroplane or racing car works? Do you want to have a career where you design and make things that can change the way we live, where you work at the cutting edge of new medical techniques or advances in engineering? Physics reveals the mathematical beauty of the universe at scales ranging from subatomic to cosmological. The goal of physics is to understand how things work from first principles — a few particles, forces and fields, and the formulae that connect them — and find ways of applying those ideas, to solve problems and further our understanding. Physics develops imagination and strengthens quantitative reasoning and problem solving skills that are valuable in areas beyond physics.

### Course content

1. Particles and radiation
2. Waves and optics
3. Mechanics and materials
4. Electricity
5. Gravitational, electrical and magnetic fields
6. Nuclear physics
7. Practical design and evaluation
8. Astrophysics (option)



### Assessment

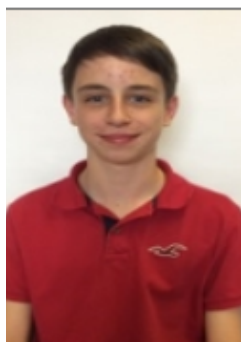
At the end of year 13 you will take three papers, totalling 6 hours of exams.

You will also be required to complete a write up of 12 practicals within the two years for the practical endorsement.

# What can you do with A level Physics?

## Careers include:

- All aspects of Engineering including aerospace, biomedical, clinical, mechanical , automotive or nuclear engineer.
- Architect, Civil Engineer
- Electrical or Electronics Engineer
- Sound engineer, special effects designer, computer games developer
- Radiographer, Radiologist, Prosthetics designer, Medical physicist
- Astrophysicist, Cosmologist, Particle Physicist, Theoretical physicist



## Aerospace Engineering

What you need: A level physics , mathematics and one other subject, typically all A's

"I specifically enjoy learning the basis of particle and nuclear physics, how the universe works on both the tiny and huge scale" - Alick

## Nuclear Engineering (apprenticeship)

What you need: A level in physics, mathematics and one other subject, grades A/B in each subject.

"I really enjoyed learning about the fundamental ideas that control everything in the universe and being able to apply it to real life problems" - James



**Physics Exam Board:** AQA

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Conyers Sixth Form

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