

Physics

Overview

This AS course is a relevant option for those students who have found the physics sections of their science courses interesting and challenging.

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 some big questions, but they specialise in different areas and their work can be varied.

For example, nuclear physicists study the tiniest particles of matter to discover what the universe is made of, whereas astrophysicists study some of the largest things – 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).

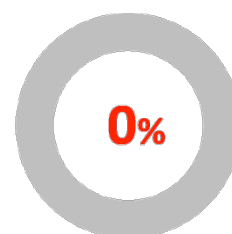
Physics @ QEHS:

- Excellent track record of examination results
- Experienced teachers
- Practical focus within many lessons
- A well resourced department

Assessment



Examination



Controlled Assessment

Examining Board

WJEC

Requirements

You will be required to get a B grade in either Double award Science or Triple Science to study the A level. The course contains a high mathematical skill and so it would be recommended that you have a B grade or above.

Departmental Staff

Mr A. Humphries (Curriculum Leader)

Mr P. Edwards

Mr G. Roberts

“What our students say...”

“Physics is so fun it Hertz”.

*“Broaden your mind,
explore the universe”.*

Fergus and Annie



Course Outline

AS UNIT 1 MOTION, ENERGY AND MATTER

20% of A level qualification

This unit includes the following topics:

1. Basic physics
2. Kinematics
3. Dynamics
4. Energy concepts
5. Solids under stress
6. Using radiation to investigate stars
7. Particles and nuclear structure

AS UNIT 2 ELECTRICITY and LIGHT

20% of A level qualification

This unit includes the following topics:

1. Conduction of electricity
2. Resistance
3. D.C. circuits
4. The nature of waves
5. Wave properties
6. Refraction of light
7. Photons
8. Lasers

A2 UNIT 3 OSCILLATIONS and NUCLEI

25% of A level qualification

A2 UNIT 4 FIELDS and OPTIONS SECTION

25% of A level qualification

A2 UNIT 5

PRACTICAL EXAMINATION

10% of A level qualification

Career and Progression Opportunities

AS Physics is the foundation course for the full A level and provides rigorous preparation for students wishing to pursue further studies in physics, engineering, medicine and many other science courses at university.

Physics is especially helpful for jobs that involve building things and developing new technologies, including: engineering (flight, buildings, space, you name it...), astronomy, robotics, renewable energies, computer science, communications, space exploration, science writing, sports and games technology, research and nanotechnology.

Contact

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