PHYSICS

A Level

Course Outline

Gluons to galaxies and everything in between. This course builds on knowledge and skills developed at GCSE. Physics is for the sort of person who enjoys using mathematics and problem solving to answer questions about how the world works. You will study topics such as mechanics and electricity. Then you go on to study Quantum Physics, the world of subatomic particles, force fields, radioactivity and optional topics such as astrophysics. An important part of the course is about making predictions and observations, then understanding the mathematical relationships behind those concepts.

During the course you develop:

- Mathematical problem solving skills and practical skills;
- An insight into how the Universe works;
- The thinking skills and philosophy of a physicist.

Useful skills and experience

You should enjoy problem solving and be able to work independently and in small groups.

You should have good Mathematical skills and be prepared to manipulate algebra and very large or very small numbers in standard form.

Assessment

You will be actively involved in individual and group work and the approach will encourage questioning and problem solving. Assessment will be through external written examinations which will address both theoretical and practical aspects of the course. There will be an opportunity to be awarded a separate practical skills qualification endorsement through teacher assessment.

Where could this subject take me?

The problem solving skills of physicists are highly sought after. Physicists can become Research scientists but also can enter the world of professional Engineering- building bridges, power stations etc.. Many physicists enter the more challenging aspects of ICT- systems analysts, programme designers etc. Physicists are needed in Medicine: radiology, isotopic medicine, ultrasound and other areas. Surprisingly, physicists are highly sought after in many seemingly unrelated areas such as Finance for their skills.

Exam Boards and Specification

AQA

Entry Notes

- 66 in Combined Science GCSE OR 6 in GCSE Physics.
- 6 in GCSE Mathematics.
- BTEC Science would not be accepted.

Complementary Subjects

- Mathematics is strongly recommended

Related Additional Activites

The opportunity for a trip to CERN in Switzerland.

International Physics Olympiad

Lectures and science events held locally on island - a great way to expand your knowledge.

What our students say

I love Physics because each lesson is about something interesting and real, using maths and logic to solve problems.