

PHYSICS – NATIONAL 4

What are the aims of this course?

The **National 4 Physics course** is designed for pupils who wish to gain an overview into the world of physics and how it is applied in modern society, from engineering to transport.

What are the recommended entry levels for this course?

For this course, potential pupils would be expected to have shown competence in their previous science studies.

What content is included in this course?

The course is composed of three units of study including; **Dynamics and Space, Electricity and Electronics** and **Waves and Radiation**.

What skills will I develop?

The main aims of this Course are to:

- develop and apply knowledge and understanding of physics
- develop an understanding of physics' role in scientific issues and relevant applications of physics in society and the environment
- develop scientific inquiry and investigative skills
- develop scientific analytical thinking skills in a physics context
- develop the use of technology, equipment and materials, safely, in practical scientific activities
- develop problem solving skills in a physics context
- use and understand scientific literacy, in everyday contexts, to communicate ideas and issues
- develop the knowledge and skills for more advanced learning in physics

What learning and teaching approaches will I experience?

A range of learning and teaching approaches are used including individual work, group work and cooperative activities. There is an emphasis on **practical work**, experimental design and data analysis.

How will I be assessed?

The course is assessed internally. Pupils must pass 3 knowledge based tests (including problem solving skills), complete a research task, investigation and added value unit.

SQA will provide rigorous external quality assurance, including external verification, to ensure assessment judgements are consistent and meet national standards.

What are the homework requirements?

Pupils are set a minimum of **one homework per key area**. This could include written tasks, learning or consolidation of knowledge and understanding.

What are the possible progression routes?

Achieving a **pass** at National 4 would allow progression to the **National 5** course.

Certification anticipated in:

National 4 Physics is allocated 24 SCQF points at SCQF level 4.