

## PHYSICS – NATIONAL 5

### What are the aims of this course?

The **National 5 Physics course** is designed for pupils who wish to begin a detailed study into the exciting applications of physics in our modern world from grand scale astronomy to the microscopic scale where physics can be applied to understand the particles and waves around us. Applications such as astronomy, transport, flight, medicine, engineering (mechanics and electronic) will be considered.

### 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 aims of this Course are for learners to:

- develop and apply knowledge and understanding of physics
- develop an understanding of physics' role in scientific issues and relevant applications of physics, including the impact these could make 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 planning skills
- develop problem solving skills in a physics context
- use and understand scientific literacy, in everyday contexts, to communicate ideas and issues and to make scientifically informed choices
- develop the knowledge and skills for more advanced learning in physics
- develop skills of independent working

### 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 through an external examination and an assignment. **The grade achieved is based on the final examination (80marks) and the assignment (20marks)**. Pupils must also pass 3 knowledge based tests (including problem solving skills), an investigation and a research task. No overall award will be given until all internal assessments have been passed.

### 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 **B grade** or above at National 5 would allow progression to the **Higher Physics** course.

### Certification anticipated in:

National 5 Physics is allocated 24 SCQF points at SCQF level 5, Grade A - C