

## Why Physics?

Physics is the study of the universe, from the largest galaxies to the smallest subatomic particles. Physicists play a key role in meeting society's needs in areas such as medicine, energy, industry, material development, the environment and sustainability.

## Course outline

From the sources of the energy we use, to the exploration of space, Physics covers a range of applications that affect our lives. Studying Physics allows you to gain an insight into the underlying nature of our world and its place in the universe. It will help you to develop your logical and critical thinking, solve problems and make decisions.

# PHYSICS NATIONAL 5

## Details of Course Components

The course has **three** compulsory units, plus an **added value** unit that assesses your practical skills. The units are the same as those for **National 4** but you will have to produce a higher standard of work.

### Physics: Electricity and Energy

In this unit you will:

- deepen your understanding of the applications of electricity and energy, and the implications of this for society and the environment
- learn about the key areas of energy transfer, heat and the gas laws.

### Physics: Waves and Radiation

In this unit you will:

- increase your knowledge of the applications of waves and radiation and the implications of this for society and the environment
- investigate the key areas of waves and nuclear radiation.
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### Physics: Dynamics and Space

In this unit you will:

- learn more about the applications of dynamics and space and the implications of this for society and the environment
- investigate the key areas of kinematics, forces and space.

## ASSESSMENT

Your work will be assessed by your teacher on an on-going basis throughout the course.

Items of work might include:

- practical work - such as experiments
- written work - research assignments and lab reports
- class-based exams.

## The course award is determined by:

**Final exam** — 100 marks

**Assignment** — an investigation written up in class and submitted to the SQA to be marked. 25 marks

The Course assessment is graded A–D. Your grade will depend on the total marks gained from the assignment and final exam.



## FACULTY OF SCIENCE

### Biology Staff :

Mr Alan Stickle, Miss Rowan Cannell,  
Miss Sue Rodwell

### Chemistry Staff:

Mr Stephen McNeil, Miss Kat Barnard,  
Mrs Maryann Blakeborough

### Physics Staff:

Mrs Abi Gibbon, Mr Steven Dempsey

### Career Areas:

Physicists play a key role in meeting society's needs in areas such as medicine, energy, industry, material development, the environment and sustainability.

### Courses in Turriff Academy

National 4 Environmental Science  
National 4 Chemistry  
National 4 Physics  
National 5 Biology  
National 5 Chemistry  
National 5 Physics  
Higher Biology  
Higher Chemistry  
Higher Physics  
Scientific Technologies NPA  
Advanced Higher Biology  
Advanced Higher Chemistry  
Advanced Higher Physics

### Useful websites to help you with your choices:

[www.myworldofwork.co.uk](http://www.myworldofwork.co.uk)  
[www.skillsdevelopmentscotland.co.uk](http://www.skillsdevelopmentscotland.co.uk)

*Further advice and information on these options is available from your subject teacher, guidance teacher and careers adviser.*