Why Biology?
Biology – the study of living organisms – affects us all. You will find out how Biology is helping to find solutions to world problems. Advances in technology mean biologists are exploring the use of genetic modification to produce new plants and drugs, solving crimes by understanding crime scene material, and developing new sources of food for our growing population.
There are many career opportunities connected with biology, including medicine, veterinary work, nursing, dentistry, physiotherapy, food science, sport science, pharmacology and beauty therapy.

Course Outline
Biology is a hands-on subject that develops your analytical thinking, and helps you to solve problems through experiments and research. You will learn about living systems and their interdependence. You will find out about evolution of species, and how humans impact on the environment. You will develop your practical and investigation skills by carrying out biological experiments in laboratories.

BIOLOGY 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 achieve a higher standard of work.

Cell Biology
In this unit you will:

- develop your skills of scientific enquiry by studying: cell structure; transport across cell membranes; producing new cells; DNA and the production of proteins; proteins and enzymes; genetic engineering and respiration.

Biology: Multicellular Organisms
In this unit you will:

- studying cells, tissues and organs, stem cells and meristems
- develop an understanding of control and communication, reproduction, variation and inheritance;
- learn to understand the need for transport and effects of lifestyle choices on animal transport and exchange systems.

Biology: Life on Earth
In this unit you will:

- develop your investigation and analytical thinking skills by studying biodiversity and the distribution of life and energy in ecosystems and photosynthesis.
- use sampling techniques and measurement of abiotic and biotic factors.

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 it 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.

TURRIFF ACADEMY
READY • RESPECTFUL • SAFE

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:

There are many career opportunities connected with biology, including medicine, veterinary work, nursing, dentistry, physiotherapy, food science, agriculture, sports science, biomedical science, pharmacology and beauty therapy.

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
www.skillsdevelopmentscotland.co.uk

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