

## 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, agriculture, sports science, biomedical 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 cells and proteins, organisms and evolution and investigative biology

# BIOLOGY ADVANCED HIGHER

## Details of Course Components

The course has three compulsory units, two of which are taught units and the third being partly taught plus a research project

### **Biology: Cells and Proteins:**

- Laboratory techniques for biologists
- Proteins - proteomics
- Proteins - structure
- Membrane proteins
- Detecting & amplifying environmental stimuli
- Communication within multicellular organisms
- Protein control of cell division

### **Biology: Organisms and evolution:**

- Field techniques for biologists
- Organisms - evolution
- Variation and inheritance
- Sex and behaviour
- Parasitism

### **Investigative Biology:**

- Scientific principles and process
- Experimentation
- Critical evaluation of scientific work

## ASSESSMENT

Your work will be assessed by your teacher on an ongoing basis and by the SQA at the end of the course

- Question paper set by the SQA (100 marks scaled to 120 marks)
- Project marked by the SQA (30 marks scaled to 40)



## 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](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.*