

## National 4 Biology (Course Code: C707 74)

SCQF Level 4 (24 Credit Points)

### Why study Biology?

Biology is the study of all living things, from the tiniest organisms to the largest lifeforms. You will learn how nature and the human body work, and how different forms of life eat, make energy and reproduce. You will also find out how Biology is helping to find solutions to world problems.

There are many career opportunities connected with biology, including medicine, nursing, dentistry, physiotherapy, food science, sport science, pharmacology and beauty therapy.

### Career Pathways

To see what career areas this subject could lead to and the routes to get there, download and view these career pathways:

[Animals, Land and Environment](#)

[Hairdressing, Beauty and Wellbeing](#)

[Health and Medicine](#)

[Science and Maths](#)

[Sport](#)

[Uniformed and Security Services](#)

### What do I need to get in?

Entry is at the discretion of the school or college but you would normally have achieved one of the following:

- National 3 Biology
- National 3 Chemistry
- National 3 Environmental Science
- National 3 Physics
- National 3 Science

### What will I study?

Biology is a practical, hands-on subject that develops your skills of scientific enquiry, and helps you to solve problems and make decisions. You will learn about plants, animals and people. You will find out how population growth is affecting the variety of life on earth (known as biodiversity). You will develop your skills in carrying out biological experiments in laboratories.

The course has **three** compulsory units plus an **added value** unit that assesses your practical skills.

### **Cell Biology (6 SCQF credit points)**

In this unit you will:

- develop your skills of scientific inquiry, investigation and analytical thinking by studying cell division, DNA, genes and chromosomes, enzymes, microorganisms, and photosynthesis.

### **Biology: Multicellular Organisms (6 SCQF credit points)**

In this unit you will:

- learn about sexual and asexual reproduction and their importance for survival of species
- learn about propagating and growing plants;
- explore the commercial use of plants, genetic information and growth and development of different organisms
- learn how organisms respond to internal and external changes in order to maintain stable body conditions.

### **Biology: Life on Earth (6 SCQF credit points)**

In this unit you will:

- learn how animal and plants species depend on each other
- study the impact of population growth on biodiversity, the nitrogen cycle, fertiliser design
- learn what impact fertilisers have on the environmental
- explore the adaptations for survival and learned behaviour in response to stimuli.

### **Added Value Unit: Biology Assignment (6 SCQF credit points)**

In this unit you will:

- carry out an investigation on a biological topic, drawing on the skills you have learned from the other units and present your findings in an assignment.

## **How will I be assessed?**

Your work will be assessed by your teacher on an ongoing basis throughout the course. Items of work might include:

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

You must pass all the units including the practical assignment to gain the course qualification.

## Study Materials

## What can I go on to next?

If you complete the course successfully, it may lead to:

- **National 5 Biology**
- **National 5 Environmental Science**

Further study, training or employment in:

- Animals, Land and Environment
- Biology
- Health and Medicine
- Science and Mathematics
- Secondary School Teaching
- Sport
- Sports Science