

BIOLOGY (National 4)

What are the aims of this course?

Biology — the study of living organisms — plays a crucial role in our everyday existence, and is an increasingly important subject in the modern world. Advances in technologies have made this varied subject more exciting and relevant than ever.

The course develops scientific understanding of biological issues and aims to generate enthusiasm for biology by developing learners' interests through a variety of approaches to learning, with an emphasis on practical activities. The course will be of value to those wishing to develop skills, knowledge and understanding of biology.

The course is a broad and up-to-date selection of concepts and ideas relevant to the central position of life science within our society. The course covers major areas of biology, and the scale of topics ranges from molecular to whole organism and ecosystems. In addition, to increase the relevance of the course, the most interesting applications of biological research are investigated. The course allows flexibility and personalisation by offering choice in the contexts studied.

What will I be learning about in this course?

The course has three units:

- **Cell Biology-** the structure, function, processes and variety of living cells.
- **Multicellular Organisms-** the growth, development, communication and genetics of multicellular organisms.
- **Life on Earth-** the study of how all living organisms depend on one another and the environment factors which affect them.

What skills will I develop?

Skills in literacy, numeracy, ICT and problem solving will be developed in each of the units in the context of particular topics. For example there are several opportunities for pupils to become scientifically literate citizens through improving their awareness of biological issues and improving their understanding of research and statistics. As more science is reported in the news these skills are crucial for pupils to play an active part in society. Experimental and investigative activities will work on problem solving skills as pupils face more challenging practical work. We hope that learners will be able to develop a lifelong interest in biology and will recognise the impact biology makes on their lives, the lives of others, the environment and on society.

What learning and teaching approaches will I experience?

This course has practical and experiential learning opportunities, with a strong skills-based approach to learning. Teachers will use a variety of media to communicate new concepts and provide a range of activities to stimulate pupils' interest.

How will I be assessed?

Each of the units of the course will be internally assessed by a short written test. Pupils will also complete a brief research report and an experimental write-up of a practical investigation. There is also an Added Value unit assignment which involves researching a relevant topic and writing a report to show their findings. There is no external examination.

What are the homework requirements?

In addition to regularly reading over their notes, pupils will be expected to complete a series of questions at a level similar to the unit tests, on a fortnightly basis, to check their knowledge and understanding.

What might this course lead to in the future?

- . Biology (National 5)
- . National 4 or 5 in another science subject
- . Skills for Work Courses at college (SCQF levels 4 or 5)
- . National Certificate Group Awards
- . National Progression Awards (SCQF levels 4 or 5)
- . Employment