

BIOLOGY (National 5)

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. The Course covers all of the major areas of biology and allows learners to develop a deeper understanding of the underlying themes: evolution and adaptation, structure and function, inheritance, life processes of living organisms, and interactions between organisms and their environment. Advances in technologies have made this varied subject more exciting and relevant than ever. Consequently 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. For example: it explores the use of genetic modification to produce new plants and drugs, devising better fertilisers to increase food production, the potential to cure diseases using stem cells, and developing our understanding of how body systems communicate. The course will be of interest to learners wishing to develop skills, knowledge and understanding of biology.

Overall the course aims to:

- § develop scientific and analytical thinking skills in a biological context
- § develop understanding of biological issues
- § acquire and apply knowledge and understanding of biological concepts
- § develop understanding of relevant applications of biology in society

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?

The course provides opportunities for learners to become scientifically literate citizens, while developing their literacy and numeracy skills. It will also develop learners' investigative and experimental skills in a biological context. A new focus on research skills will also lead to improvements in pupils' application of ICT skills. In addition, 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.

Through this course, they can develop relevant skills for learning, for use in everyday life and in employment. Due to the interdisciplinary nature of the sciences, learners benefit from studying biology along with other science subjects, as this enhances the learner's skills, knowledge and understanding.

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 complete an experimental write-up of a practical investigation.

There is also an assignment which involves pupils researching a relevant topic and writing a report to show their findings. This assignment report is marked externally by the SQA. The external exam is a 2.5 hour paper consisting of both Multiple Choice and Extended Response questions.

What are the homework requirements?

In addition to regularly reading over their notes, pupils will be expected to complete a series of exam-standard questions, on a fortnightly basis, to check their knowledge and understanding.

What might this course lead to in the future?

- § Higher in Biology or Human Biology
- § National 5 in another science subject
- § Skills for Work Courses (SCQF levels 5 or 6)
- § National Certificate Group Awards
- § National Progression Awards (SCQF levels 5 or 6)
- § Employment