



Access 3 Biology — draft Course rationale and summary

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Course rationale

Background

All new and revised National Courses reflect Curriculum for Excellence values, purposes and principles. They offer flexibility, provide more time for learning, more focus on skills and applying learning, and scope for personalisation and choice.

In this Course, and its component Units, there will be an emphasis on skills development and the application of those skills. Assessment approaches will be proportionate, fit for purpose and will promote best practice, enabling learners to achieve the highest standards they can.

This Course provides learners with opportunities to continue to acquire and develop the attributes and capabilities of the four capacities as well as skills for learning, skills for life and skills for work.

All Courses provide opportunities for learners to develop breadth, challenge and application, but the focus and balance of the assessment will be appropriate for the subject area.

Relationship between the Course and Curriculum for Excellence values, purposes and principles

Through enjoyable learning in biology, learners develop their interest in and understanding of the world. They engage in a wide range of investigative tasks, which allows them to develop important skills in biology which will be useful across all sectors of society.

Biology Courses should encourage resilience, which leads to becoming a confident individual. Successful learners in biology think creatively, analyse and solve problems. Biology can produce responsible citizens through studying areas such as health, environment and sustainability.

Access 3 Biology allows learners to understand and investigate the living world in an engaging and enjoyable way. It develops learners' ability to think analytically and independently and to make reasoned evaluations. The Course provides opportunities for learners to acquire and apply knowledge and develop an informed and ethical view of topical issues. Learners will be able to develop their communication and collaborative working skills.

Purpose and aims of the Course

Science is vital to everyday life and allows us to understand and shape the world in which we live and influence its future. Scientists play a key role in meeting society's needs in areas such as medicine, energy, industry, material development, the environment and sustainability. It is important that everyone has an informed view of science.

The Course develops scientific awareness of biological issues. Biology is 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 new technologies have made biology more exciting and relevant than ever. It affects everyone through medical science and promises solutions to many of the world's problems.

The Course is an up-to-date selection of ideas relevant to the central position of life science within our society. The Course covers some major areas of biology and allows learners to develop an understanding of the underlying themes while developing scientific skills, such as investigative and experimental skills, in a biological context. The Course allows flexibility and personalisation by offering choice in the contexts studied.

The aims of the Course are for learners to:

- ◆ develop scientific thinking skills in a biological context
- ◆ develop understanding of biological issues
- ◆ apply knowledge and understanding of biological concepts
- ◆ develop problem solving skills in a biological context
- ◆ develop understanding of relevant applications of biology in society

The Course provides opportunities for learners to develop scientific literacy, numeracy and literacy skills. In addition, learners will recognise the impact biology makes on their lives, on the lives of others, on the environment and on society. Through this Course, they can develop relevant skills for learning, for use in everyday life and in employment.

Information about typical learners who might do the Course

The Course is suitable for learners who have experienced learning across the Third level sciences experiences and outcomes. The Course may be suitable for those wishing to study biology for the first time.

This Course has a skills-based approach to learning. It takes account of the needs of all learners and provides sufficient flexibility to enable learners to achieve in different ways.

On successful completion of this Course, the learner could progress to:

- ◆ Biology (National 4) Course
- ◆ Access 3 or National 4 in another science subject
- ◆ Skills for Work Course (SCQF level 3 or 4)
- ◆ National Certificate Group Awards
- ◆ National Progression Awards (SCQF level 3 or 4)
- ◆ employment

Course summary

Course title: Access 3 Biology

SCQF level 3 (18 SCQF credit points)

Course outline

Mandatory Units

Biology: Cell Biology (Access 3)	(6 SCQF credit points)
Biology: Multicellular Organisms (Access 3)	(6 SCQF credit points)
Biology: Life on Earth (Access 3)	(6 SCQF credit points)

Course structure and conditions of award

Learners will gain knowledge and understanding of biology and develop this through a variety of approaches, including practical activities.

As well as developing specific scientific skills, in areas such as experimentation and investigation, learners will also gain valuable transferable skills, for learning, life and work, such as literacy and numeracy.

Units are statements of standards for assessment and not programmes of learning and teaching. They can be delivered in a variety of ways.

Biology: Cell Biology (Access 3)

In this Unit, learners will develop skills and carry out practical and other learning activities related to study and investigation of the cell. Learners will investigate photosynthesis, respiration, DNA, proteins, and biotechnology.

Biology: Multicellular Organisms (Access 3)

In this Unit, learners will develop skills and carry out practical and other learning activities related to study and investigation of plants and animals. Learners will investigate the nervous system, reproduction and inheritance, the need for transport systems, world issues around food, and factors affecting health.

Biology: Life on Earth (Access 3)

In this Unit, learners will develop skills and carry out practical and other learning activities related to study and investigation of relevant topics such as ecosystems and biodiversity. Learners will investigate living and non-living factors, the importance of biodiversity, variation and the factors affecting population growth, behaviour and responses, energy, and nutrient cycles.

To achieve the Access 3 Biology Course, learners must pass all of the required Units. The required Units are shown in the Course outline section.

Access 3 Courses are not graded.

Assessment

All Units are internally assessed against the requirements shown in Unit specifications.

They will be assessed pass/fail within centres.

SQA will provide rigorous external quality assurance, including external verification, to ensure assessment judgements are consistent and meet national standards.

Exemplification of possible assessment approaches for Units will be provided in the *National Assessment Resource*.

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