

Biology Department

National 4 Biology guide

Entry Requirements

Entry to this course is at the discretion of the Science faculty. This is to make certain that you are ready for the requirements of the course.

The Course Content

The course consists of three units (40 hours each):

Unit 1 Cell Biology	Unit 2 Multicellular organisms	Unit 3 Life on earth
<p>Subtopics:</p> <ul style="list-style-type: none">• Cell division, growth and repair.• DNA, genes and chromosomes• Therapeutic use of cells• Properties of enzymes and their use in industry.• Microorganisms and industry• Photosynthesis• Respiration• Controversial biological procedures	<p>Subtopics:</p> <ul style="list-style-type: none">• Sexual and asexual reproduction• Propagating and growing plants• Commercial use of plants• Genetic information• Growth and development of different organisms• Biological actions in response to changes	<p>Subtopics:</p> <ul style="list-style-type: none">• Species interdependence• Impact of population growth and natural disasters on biodiversity• Nitrogen cycle• Fertilisers• Adaptations for survival• Learned behaviour in response to stimuli for survival

Assessment

There are several pieces of assessment during this course.

- 1) Outcome 1 –
 - **Assessment standards 1.1-1.5 'Investigation'**
 - You will conduct an investigation and produce an accurate scientific report.
- 2) Outcome 2 –
 - **Assessment standard 2.1/2.4 'Key Area Test' (KAT).**
 - This assesses knowledge and understanding as well as problem solving skills. The problem solving skills covered are selecting, processing and predicting. These are completed in class and marked by staff to SQA exam board standards.
 - **Assessment standard 2.2/2.3 'Short report'.**
 - You will research an area of biology and produce a short report (70-100 words) that discusses your findings in relation to its effect on society and the environment
- 3) Assignment
 - You are required to research an aspect of biology and write about its effect on society and the environment. You are expected to select, analyse and present data in your work as well as to reference where your information came from.

There is no exam for this award.

You must pass all forms of assessment before you can receive a course award.

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In S6, you could follow an
Alternative pathway
to Higher Human Biology.

