

# BIOLOGY



**Examination Board:** OCR

**Qualification:** A level

**Teacher Contact:** Mr Hamilton, Mrs Burke, Miss Hodges

**Entry Requirements:**

At least a B in Core and Additional Science GCSE or a B in GCSE Biology.

**What will I study?**

First year A level course is comprised of three units:

**Unit 1: Development of practical skills in biology** The development of practical skills is a fundamental and integral aspect of the study of any scientific subject. These skills not only enhance learners' understanding of the subject but also serve as a suitable preparation for the demands of studying biology at a higher level.

**Unit 2: Foundations in Biology**

This module gives learners the opportunity to use microscopy to study the cell structure of a variety of organisms. Biologically important molecules such as carbohydrates, proteins, water and nucleic acids are studied with respect to their structure and function.

**Unit 3: Exchange and Transport**

In this module, learners study the structure and function of gas exchange and transport systems in a range of animals and in terrestrial plants.

The Year 2 Course:

**Unit 4: Biodiversity, evolution and disease**

In this module the learners study the biodiversity of organisms; how they are classified and the ways in which biodiversity can be measured. It serves as an introduction to ecology, emphasising practical techniques and an appreciation of the need to maintain biodiversity

**Unit 5: Communication, homeostasis and energy**

In this module, the biochemical pathways of photosynthesis and respiration are considered, with an emphasis on the formation and use of ATP as the source of energy for biochemical processes and synthesis of biological molecules.

**Unit 6: Genetics, evolution and ecosystems**

This module covers the role of genes in regulating and controlling cell function and development. Heredity and the mechanisms of evolution and speciation are also covered.

**Am I suited to this course?**

You would be well-suited to studying Biology at A level if:

- you have enjoyed Biology at GCSE and are interested in furthering your knowledge of living things
- you can think logically and scientifically in order to understand new concepts
- are well organised and self-motivated
- you are interested in learning how technology, including information technology is furthering this science
- you show an attention to detail in your work

**What other subjects does it complement?**

Biology fits well in combination with a variety of other subjects such as Sciences, Geography and PE. For students wishing to apply for a degree in Biological Science, it is advisable to be also studying Chemistry.

**Where can it lead?**

Biology provides an excellent base to proceed into a range of related Higher Education Courses. These include Nursing, Physiotherapy, Medicine, Sports Science, Veterinary Science, Biochemistry, Ecology and Psychology.

**What has been said?**

*'It really helps you understand the world around you.'* – Year 12 student.

