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# BIOLOGY

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Biology is a challenging subject and this A Level course reflects the recent advances and growing importance of the biological sciences in the fields of biotechnology and genetic engineering. The chief goal is to develop an interest in, and enthusiasm for, the subject and an appreciation of how Biology contributes to the success of the economy and society.

*Examining board Specification*

OCR

A LEVEL Biology H040

## **ENTRY REQUIREMENTS TO THE A LEVEL COURSE**

Please see the Sixth Form Admissions Policy for the entry requirements to this course.

## **THE A LEVEL COURSE**

Module 1: Development of practical skills. This involves skills of planning, implementing, analysis and evaluation.

Module 2: Foundations in Biology. This involves learning about cell structure, biological molecules, enzymes, DNA, membranes, cell division and diversity.

Module 3: Exchange & Transport. This involves learning about exchange surfaces such as the lungs and gills, animal and plant transport systems.

Module 4: Biodiversity, evolution and disease. This involves learning about the immune system, communicable diseases, classification, natural selection and biodiversity.

Module 5: Communication, homeostasis and energy. This involves learning about excretion, the nervous system, hormones, photosynthesis and respiration.

Module 6: Genetics, evolution and ecosystems. This involves learning about genetics and patterns of inheritance, manipulating genomes, cloning and biotechnology and population and sustainability.

## **Examinations:**

Three papers, plus you will be given a practical endorsement if you have met the basic practical skills required to be a Biologist:

Paper 1: Biological processes (examining content from Module 1, Module 2, Module 3 and Module 5).

Paper 2: Biological diversity (examining content from Module 1, Module 2, Module 4, and Module 6).

Paper 3: Unified Biology (examining content from any area of the course).

Practical Endorsement – Pass/Fail, reported separately.

## **STUDENT VIEWPOINT**

Students find Biology a demanding but enjoyable and rewarding subject. They are encouraged to show their enthusiasm by considering and discussing topical biological issues, reading the Biological Science magazine and spending time outside the classroom on research into the subject.

## **COMPLEMENTARY SUBJECTS**

Chemistry is the most complementary subject as it helps students with the biochemical aspects of the course and is also an essential requirement for many biologically based courses at Universities and Medical Schools. However, other subjects, such as Art and Geography, can be combined with Biology.

## **CAREER AND UNIVERSITY OPPORTUNITIES**

It is pleasing to note that most A Level Biology students continue with a career in this subject e.g. Biomedical Science, Biological Science, Botany, Medicine, Natural Sciences, Zoology. Career opportunities for biologists are on the increase. They include: Biotechnology, Bioengineering, Biochemistry, Conservation, Medicine, Pathology, Physiotherapy, Natural Sciences, Environmental Science, Genetic Engineering, Food and Drug Industries, Forensic Science, Pharmacy, Pharmacology.