BIOLOGY

Qualification: A-Level

Overview of subject:

Over the course of 2 years you will study a range of biology topics that will lead you to become a confident, proficient biologist. Each unit will include key concepts, which build on core knowledge from GCSE, with a mix of mathematical and practical skills. Mathematics make up approximately 10% of the A level biology exams; these mathematical/stats questions will be applied in the context of biology concepts you have learnt over the 2 years. The mathematics involved will be at least the standard of higher tier GCSE mathematics. The practical skills will be interlinked with key topics and will be formally assessed as part of the course assessments. It is important that during the course you develop practical skills that allow you to complete experiments accurately, efficiently and safely. Some of the skills you have already mastered others will be new to you.

Topics studied in the syllabus include:

There are 8 core topics taught across the two-year course.

1. Biological molecules
2. Cells
3. Organisms exchange substances with their environment
4. Genetic information, variation and relationships between organisms
5. Energy transfers in and between organisms
6. Organisms respond to changes in their internal and external environments
7. Genetics, populations, evolution and ecosystems
8. The control of gene expression

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The course might be of interest to:

Those of you who excelled at Biology at GCSE and have continued to develop your intrigue of how organisms' function and interact with the wider world, will find the course most suitable to you.

Building on your strong foundation from GCSE, the course will allow you to problem solve as well as deepen your understanding of how organisms (plants and animals) continue to evolve, adapt and function.

Year 13 particularly focuses on how technology is being developed and used to wider our understanding of the biological world on a cellular level.

Potential future pathways:

If you are considering studying Biology, medical sciences, genetics at university then this course might be right for you.

The recent focus on employment in the scientific field (in hospitals, labs and research) through the pandemic has made a degree in the biosciences a key area of employment. However, the course also offers transferable skills such as problem solving, analytical skills and wider research that can be applied to medical journalism, criminology and conservation.