

Sixth Form Courses

AS & A2 Biology

Why take this subject?

Biology is never far from the headlines...The human genome has been sequenced and we know the complete arrangement of the three thousand million bases that make up human DNA. In Kenya 350 people die every day from AIDS and in South East Asia the skies are dark with smoke as the last Bornean rainforests are burned to grow oil palms. Biologists are concerned with all of these issues. They work in the fields of cell biology, medicine, food production and ecology... and the work they do is vital to us all. AS Biology involves the study of a wide range of exciting topics, ranging from molecular biology to the study of ecosystems and from pathogenic micro-organisms to muscle contraction.

What do I need to have studied at GCSE?

Students will have studied additional science or triple sciences at GCSE. All students should have a minimum BBB grade in their separate sciences or a minimum BB in their additional science. They should also show consistent effort and homework grades of 2 and above. Additionally, students should have a minimum of a B grade in Maths and English GCSEs and, again, homework consistently at 2 or above.

What will we study?

In the first year you'll study four main topics: 'Biological molecules', Cell, 'Organisms exchange substances with their environment and Genetic information', 'variation and relationships between organisms'. Year two helps you build on that firm foundation and, like year one, has four academic topics. The academic topics are Energy transfers in and between organisms, Organisms respond to changes in their internal and external environments, 'Genetics, populations', 'evolution and ecosystems' and 'The control of gene expression' and 'Control in cells and organisms'.

The Biology A-Level course helps students develop a number of skills:

- How to collect data and evaluate it
- How to investigate facts and use deduction
- How to put over your point of view effectively
- How to take responsibility for your own learning

What can this subject lead to?

Biology is one of the most popular A Level subjects in the country, attracting students studying a wide range of other subjects. Many of these students enjoy the subject so much they eventually choose a biologically related degree course. Others go on to careers in law, computing, accounting or teaching. So, whatever field you will eventually work in, you will find biology a very rewarding and challenging course which will develop many of the skills essential for a successful career.

Students who take Biology often benefit from studying a wide range of other subjects, including Psychology, Sociology, PE, Chemistry, Physics, Health & Social Care and Environmental Studies.

Biology is a great choice of subject for people who want a career in health and clinical professions, such as medicine, dentistry, veterinary science, physiotherapy, pharmacy, optometry, nursing, zoology, marine biology or forensic science.

How will I be examined?

We assess at the end of the two years following the AQA A-Level scheme.
During the **A-Level** assessment you will have three papers;

Paper 1	Paper 2	Paper 3
What's assessed <ul style="list-style-type: none">Any content from topics 1–4, including relevant practical skills	What's assessed <ul style="list-style-type: none">Any content from topics 5–8, including relevant practical skills	What's assessed <ul style="list-style-type: none">Any content from topics 1–8, including relevant practical skills
Assessed Written exam: 2 hours <ul style="list-style-type: none">91 marks35% of A-level	Assessed Written exam: 2 hours <ul style="list-style-type: none">91 marks35% of A-level	Assessed Written exam: 2 hours <ul style="list-style-type: none">78 marks30% of A-level
Questions <ul style="list-style-type: none">76 marks: a mixture of short and long answer questions15 marks: extended response questions	Questions <ul style="list-style-type: none">76 marks: a mixture of short and long answer questions15 marks: comprehension question	Questions <ul style="list-style-type: none">38 marks: structured questions, including practical techniques15 marks: critical analysis of given experimental data25 marks: one essay from a choice of two titles

10% of the overall assessment of A-level Biology will contain mathematical skills equivalent to Level 2 or above.

At least 15% of the overall assessment of A-level Biology will assess knowledge, skills and understanding in relation to practical work.

Examinations in Year 13 are offered in June.

A-level practical assessment

The specification provides numerous opportunities to use practical experiences to link theory to reality, and equip students with the essential practical skills they need. Practical assessments have been divided into those that can be assessed in written exams and those that can only be directly assessed whilst students are carrying out experiments.

A-level grades will be based only on marks from written exams.

A separate endorsement of practical skills will be taken alongside the A-level. This will be assessed by teachers and will be based on direct observation of students' competency in a range of skills that are not assessable in written exams.

What super curricular opportunities will be available to me?

Currently, both AS and A2 students are offered the opportunity to travel to London for revision seminars. We also run fieldwork courses.