

A Level Biology

Examination Board: OCR A
Specification Code: H420 - A Level

Why Biology?

Through A Level it is hoped to stimulate an interest and understanding of biological facts and principles and foster an appreciation of the contribution of the subject to today's society. Over the two years, candidates are expected to further develop the fundamental scientific skills introduced through practical work at GCSE, thereby producing biologists who are also competent practical scientists. The mathematical content accounts for at least 10% of examined content and requires a careful, logical and methodical approach.

Entry Requirements

QEHS standard entry requirements will apply and in addition students will be expected to have a grade 6 or above in either GCSE Biology or grade 6 in GCSE Combined Science. A grade 6 in Maths is beneficial.

Course Content

Year 1 covers AS Content which is tested as a mock exam and not an external exam.

- Module 1: Development of practical skills – this module underpins the whole of the specification, and covers the practical skills that students should develop throughout the course. The practical skills in this module are assessed within written examinations.
- Module 2: Foundations in biology – cell structure, biological molecules, nucleotides and nucleic acids, enzymes, biological membranes, cell division, cell diversity and cellular organisation.
- Module 3: Exchange and transport – exchange surfaces, transport in animals and plants.

Year 2

- Module 4: Biodiversity, evolution and disease – communicable diseases, disease prevention and the immune system, biodiversity, classification and evolution.
- Consists of all of the above with the addition of:
- Module 5: Communications, homeostasis and energy – communication and homeostasis, excretion as an example of homeostatic control, neuronal communication, hormonal communication, plant and animal responses, photosynthesis and respiration.
- Module 6: Genetics, evolution and ecosystems – cellular control, patterns of inheritance, manipulating genomes, cloning and biotechnology, ecosystems, populations and sustainability.

To attain an A Level you will be examined on Year 1 and Year 2 content. Assessment will be covered by three examination papers in the summer of Year 13 for A Level.

A Level Practical Endorsement. Non examination. Reported separately to A Level as PASS/FAIL. Candidates complete a minimum of 12 practical activities to demonstrate practical competence.

How does learning differ from Pre-16 study?

You must not underestimate the demands of this course; many aspects are significantly more challenging than anything you will have covered before in Biology. You must be willing to engage in at least the recommended private study, as well as read around the areas covered in class to broaden your knowledge and understanding. It is imperative that assignments are completed punctually given the amount of work we cover. There is a lot of content to learn in A Level biology. The ability to learn key terms and produce extended pieces of writing is essential. If you are not sure which science is best for you to study please talk to your science subject teachers or Mrs Medcalf as Head of Science.

Prospects

A qualification in Biology is highly regarded and opens the way to a wide range of career choices such as biological sciences, medicine, veterinary medicine, dentistry, nursing, psychology, forensic science – and many, many more. The problem solving and analytical skills are valuable to both universities and future employers.

Contacts

Please contact Mrs C. Medcalf, Head of Biology, if you wish to discuss this qualification further.