



Biology (AQA)

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Biology is the study of living things, from the molecules within our cells to the organisms that make up ecosystems! You'll need to think and work like a real scientist if you choose this A level – you'll develop your ability to design practical investigations in order to collect and analyse valid data, and improve your understanding of how scientists work. Studying A-level Biology will give you a broad understanding of the principles that underpin much of this modern and dynamic subject and apply this knowledge to interesting and relevant situations.

Course Content

During year 12 students will cover biological molecules, cells, the ways in which organisms exchange substances with their environment, genetic information, variation and relationships between organisms.

During year 13 students will cover energy transfers between organisms and the ways in which organisms respond to changes in their internal and external environments. Genetics, populations, evolution and ecosystems will be studied as well as the control of gene expression.

Assessment

Assessments will comprise 3 written papers. The style of questions will be a mixture of...

- short and long answer questions,
- a comprehension question,
- questions requiring the critical analysis of given experimental data and
- an essay from a choice of two titles.

Teaching

The classes will involve a range of different teaching approaches. Many sessions will focus on practical work and the development of investigative skills. Students work individually and in small groups will work from carefully prepared resources with the help and guidance of their teacher.

The Future

The weeklong Ecology Fieldtrip takes place in Year 13 and is an integral and exciting part of the A2 course, developing your scientific thinking. The cost for this will be approximately £150. An A-level in Biology can lead to a vast number of university courses and possible careers. Possible HE courses include, zoology, medicine, pharmacy, biochemistry, dentistry and ecology. Career opportunities include medicine and related healthcare professions and careers in managing the environment. A word of warning though, many universities will require an A-level in Chemistry as well as Biology.



Independent Learning

Independent learning tasks in Biology

1. Prepare for your next lesson: Use the booklet to identify the objective of the lesson. Read the relevant material in the text book. Fill in any keywords covered during the lesson in the glossary sections in the workbook.
2. Review work covered in lessons: Critically read through the work covered and identify any areas that require further clarification or explanation. You must ensure that you understand the work. Make a list of points that require further clarification and seek help, either from the textbook, your teacher or by attending a drop in session.
3. Complete practice exam questions from the booklet you have been given. Bring your work to drop in and mark it yourself. Ask a teacher to check your marking. Ensure you understand why any discrepancies between your marking and theirs have arisen. As a gets closer to the exams, look online at www.aqa.org.uk for entire papers and their markschemes.
4. Make a set of brief revision notes and / or sets of short revision questions with answers. Make revision mind maps or summary sheets for the topics covered in class. Try to include just key facts rather than copying chunks of text. Remember to use colour and images to help you remember. Refer to the specification to ensure you've included all key points.
5. Read the background reading provided at the end of each booklet or find relevant articles in the Biological Sciences Review available in the library. Write a short summary of the articles you have read. Look online at www.newscientist.com and read articles that you find interesting to broaden your knowledge.
6. Research a topic in more detail using the links and materials available on Bloodle.