

# Biology A Level

## Course Description:

We follow the AQA Biology course, which emphasises the way in which biologists work and the contributions of Biology to society. It covers a wide range of topics including human and plant physiology, biochemistry, genetics, the diversity of life and ecosystems and builds on knowledge gained at GCSE; it will also include a field trip in the summer of Year 12 as well as other trips to see biology in use.

## Qualifications Required:

Minimum entry requirements apply. In addition, you should have Grade 7 or above in GCSE Biology and at least a Grade 6 in Chemistry or Physics, OR at least one Grade 7 in GCSE combined science. A Grade 5 or above in English Language and Maths is also required.

## Aims of the Course:

- Provide an understanding of the structure, function, diversity and interaction of living organisms
- Develop a scientific approach to problem solving
- Develop the practical skills needed to work with apparatus, biological material and living organisms
- Develop an appreciation of the nature of living material and encourage an interest in the study of living organisms
- Develop an understanding of the technological applications and of the social and environmental aspects of Biology
- Provide a scientific and biological training, either as an end in itself or as a foundation for more advanced study

## Future Prospects:

With an A level in this subject you can progress on to Science degrees or apprenticeships. 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 or nursing, or a career in zoology, marine biology, food production or forensic science.

## Student Feedback:

'Biology challenges your perception of the living world around you.'

'It's improved my analytical research skills and given me a strong foundation for a career in science.'

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## Features of the Course:

In the first year you will study 4 units, during which you will undertake various practical activities designed to sharpen your investigative skills. These topics give a solid grounding in Biology.

Year two helps you build on that firm foundation and, like year one, has 4 units plus practical work.

The Biology A level course helps you 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

### Year 12 Topics:

Topic 1: Biological molecules

Topic 2: Cells

Topic 3: Organisms exchange substances with their environment

Topic 4: Genetic information, variation and relationships between organisms

### Year 13 Topics:

Topic 5: Energy transfers within and between organisms

Topic 6: Organisms respond to changes in their internal and external environments

Topic 7: Genetics, populations, evolution and ecosystems

Topic 8: The control of gene expression

## Methods of Assessment:

### For the A Level:

3 exam papers at the end of two years:

Paper 1: 35% of the A level, examining topics 1-4

Paper 2: 35% of the A level, examining topics 5-8

Paper 3: 30% of the A level, examining topics 1-8

### Practical skills assessment:

There are 12 required practical assessments during the 2 years, knowledge of which will be tested in the written papers. You will also be assessed against CPAC criteria to gain a practical skills endorsement alongside your A level grade.