



# BIOLOGY

Fancy a career in medicine, physiotherapy, archaeology, disease, animal interaction and behaviour, nature or sport science? Then A-level Biology is for you! The skills you will acquire will be essential in understanding how your mind and body interact with the natural world throughout your life.

There are 7 trillion cells in your body making up 200 different cell types that react to every movement, stimulation, message or threat in order to keep yourself alive.

Put simply, biology is the scientific study of life, as such it encompasses the investigation of living organisms and life processes from the molecular, through cells and individual organisms to populations and whole communities of animals and plants.

## COURSE DETAILS:

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

## OTHER LEARNING OPPORTUNITIES:

- Supporting KS3/4 students in Mathematics lessons
- Use of technical scientific laboratories
- Becoming a member of the Royal Society of Biology
- Competing in the British Biology Olympiad the Biology Challenge

**EXAM BOARD:**  
AQA BIOLOGY  
(7402)

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**ASSESSMENT:**  
3 EXAMS IN TOTAL;  
A-LEVEL: (3 X 2  
HOURS) COVERING  
TOPICS 1-8 AND  
PRACTICAL SKILLS

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## WHERE NEXT WITH THIS COURSE?

Biology is a popular A-level choice and fits in well with a range of different A-levels, in particular Chemistry, Physics and Mathematics.

Pursuing Biology at A-level can lead to a range of degrees in such areas as Medicine, Sports Science, Veterinary Science, Biochemistry, Pharmacology and Dentistry.

A degree that includes aspects of biological sciences can lead to a range of diverse careers such as working with health and environmental charities, scientific and technical consultancies and journalism.

Any University course that involves the many different roles that your body undertakes in an ever-changing environment will rely on secure understanding of A-level Biology. Non-academic careers also rely heavily on Biology and how stress, diet, drug use, exercise etc. affect our day to day lives.

## ONE EXAMPLE OF HOW BIOLOGY IS CHANGING THE WORLD AROUND US:

A potential drug target has recently been found in the on going research into the treatment of Alzheimer's disease. By blocking the activity of the GPR3 protein deposits that build up in the brain are reduced. The deposits and are linked to the formation of plaques which are believed to be a key cause of Alzheimer's disease.



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# HIGHAM LANE SIXTH FORM