

# A Level Biology

## What the course covers

Students study 8 content topics over two years, these are:

### 1 Biological molecules

Biochemistry: carbohydrates, lipids, proteins and DNA. Students study how large molecules are formed, bonding and properties

### 2 Cells

Cell structure as seen through the electron microscope, cell division processes, the mammalian immune system

### 3 Organisms exchange substances with their environment

Gas exchange in fish, plants, insects and mammals, the circulatory system, digestion

### 4 Genetic information, variation and relationships between organisms

Genes, protein synthesis, taxonomy (classification) and diversity in ecosystems

### 5 Energy transfers in and between organisms

Photosynthesis, respiration, ecosystems and nutrient cycles

### 6 Organisms respond to changes in their internal and external environments

Nerves and the nervous system, muscles and homeostasis, genetics, populations, evolution and ecosystems, inheritance, populations and evolution

### 8 The control of gene expression

Mutations, molecular gene technology and the control of gene expression

The majority of this course is theoretical, however students will complete a number of set practicals during the course and there will be a field trip to complete an ecological investigation.

The complete specification can be viewed on the AQA website. [www.aqa.org.uk](http://www.aqa.org.uk)

## What students can do with this course

A Level Biology is particularly useful and sometime required for progression to many science-based university courses such as animal science, biology, zoology, ecology, clinical science, marine biology, life sciences, medicine, environmental science, forensic science or any other subject related to the natural world.

For many science degree courses A Level Chemistry is also required.

Biology A Level is also a well-respected A Level that can help students progress to non-science degree choices such as History, Economics or Law.

Possible career choices that require A Level Biology include: biological testing, biotechnology, independent research, food industry jobs, nutrition, medicine, doctor, nurse, veterinarian, zoologist, zookeeper, animal care, veterinary nurse, scientist, amongst a huge range of others. In fact, having an A Level in Biology will stand you in good stead for a huge range of careers.

## How this course is assessed

100% Examination; three exams at the end of the course.

A Level content is assessed through two 120 minute exams, one covering topics 1-4 (Y1) and the other topics 5-8 (Y2), plus the associated practical skills from the 12 required practical lessons in the course. The third exam covers data analysis and extended writing.

## Entry requirements

All our course entry requirements are detailed in the Entry Requirements document located in the admissions section of our website.