



# A Level Biology

## Why study Biology?

You wish to form in-depth understanding of the intermolecular mechanisms within cells and understand the similarities and differences between living things. Striving to understand the enormity of the interrelationships within entire ecosystems and how a small seemingly insignificant change in one area can impact upon others. Biology offers an insight into these areas and many more to do with the understanding of life. The course provides the opportunity to explore our living world, lay the foundations for further study and careers within the biological sciences such as medicine or Biochemistry and potentially for you to solve many problems facing our biosphere and humanity

## What is the course structure?

A-Level Biology – Exam Board AQA

### Topics

A total of 4 topics will be covered in year one.

- 1 Biological molecules.
- 2 Cells
- 3 Organisms exchange substances with their environment
- 4 Genetic information, variation and relationships between organisms

In year two the following topics will be covered.

- 5 Energy transfers in and between organisms
- 6 Organisms respond to changes in their internal and external environment
- 7 Genetics, populations, evolution and ecosystems
- 8 The control of gene expression

### Assessment

Within the A level papers there will be questions based upon the "Required Practicals" that you will be expected to fully participate in and complete associated learning tasks during your Biology studies. These required practicals are part of the CPAC (Common Practical Assessment Criteria) which results at the end of year 13 as either a Pass or Unclassified grade in addition to the A\*-E grades awarded at A level.

The model for assessment in A-level is as follows;

What is assessed (A level content)	A level assessment	Questions to expect
Paper 1 Any content from topics 1– 4, including relevant practical skills	written exam: 2 hours 91 marks 35% of A-level	76 marks: a mixture of short and long answer questions 15 marks: extended response questions
Paper 2 Any content from topics 5 – 8, including relevant practical skills	written exam: 2 hours 91 marks 35% of A-level	76 marks: a mixture of short and long answer questions 15 marks: comprehension question
Paper 3 Any content from topics 1– 8, including relevant practical skills	written exam: 2 hours 78 marks 30% of A-level	38 marks: structured questions, including practical techniques 15 marks: critical analysis of given experimental data 25 marks: one essay from a choice of two titles

## What activities will I be engaged in during the course?

You will enjoy this course if you have a passion for exploring the world in which you live and a desire to understand the relationships between all living organisms as they interact with each other and their various environments. You will need to apply your chemical knowledge and understanding to biochemical molecules to be able to describe the reactions of life itself.

There are a variety of opportunities that students can participate in outside of the classroom. These include a visit to the zoo to observe animal behaviours and attend a lecture as well as our excellent residential course undertaken at a field studies centre. Participation in all of these events is encouraged as it positively impacts upon performance in examinations.

**To achieve higher grades in this subject you must be prepared to commit to completing the many necessary hours of independent study the course demands.**

The learning habits you will be asked to draw upon include:

- Reading up on prior accepted knowledge and new developments in this area.
- Evaluating your understanding and identifying misconceptions within a topic.
- Thinking and communicating with clarity, using subject specific vocabulary and numerical methods.
- Questioning, posing problems and investigating new ideas
- Developing creative ways to solve problems by being thoughtful, calm and strategic whilst respecting the environment and the organisms within it.

## How can I prepare for the course?

Gain a taste of learning at A-level in Biology by taking a full and active part in the induction lessons on offer during our sixth form induction week. Completing the tasks set over the summer that you are given so that you are competent and confident in the variety of skills required of you at A - level. This will put you in a very favourable position for maximising your progress

*Subject Entry Requirements: Grade 6 in Biology or 6,6 in Combined Science*