



Kimberley
School

A Level

BIOLOGY

SIXTH FORM
SCIENCE

What is Biology?

Biology is the study of life and living things and how living things interact with their surroundings.

Who is it for?

Biology A level is aimed at students who wish to study Biology at a higher level than GCSE. It is a well-respected qualification that is recognised by all higher education institutions and employers. It is a good preparation for medical and paramedical careers such as nursing, medicine, dentistry, veterinary science, physiotherapy, etc, but can also be used for entry into other careers such as scientific research, banking, law, teaching, etc.

Course Requirements

Grade 6 GCSE Biology (Triple Science) **OR** grade 6 in Combined Science (with at least a grade 6 in the Biology component) *and* grade 6 Maths. In addition, students will be monitored closely for effort and quality of work throughout their year 11 studies. Students who do not demonstrate the necessary attitude and effort in their studies, in the opinion of their science teachers, will be discouraged from taking biology A level. The final decision on acceptance onto the course will be taken by the Science Department in conjunction with Head of Sixth Form.

The A Level Reform

Starting in September 2015, the system of Science A Levels (biology, chemistry, physics) in England and Wales underwent radical change, with the government replacing the AS/A2 system which has been in existence since 2000.

A-Levels have moved to a linear structure where all the work completed in Year 12 and 13 will be examined at the end of Year 13.



The course is made up of:

Year 12 Biology

Module 1: Development of Practical Skills in Biology

This module covers the practical skills that students will develop throughout the course.

The practical skills in this module can be assessed within written examinations.

Module 2: Foundations in Biology

Includes:

Cell structure; Biological molecules; Nucleotides and nucleic acids; Enzymes; Biological membranes; Cell division, cell diversity and cellular organisation.

Module 3: Exchange and Transport

Includes:

Exchange surfaces.
Transport in animals.
Transport in plants.

Module 4: Biodiversity, Evolution and Disease

Includes:

Communicable diseases, disease prevention and the immune system.
Biodiversity

How will you be assessed?

Performance in class and homework assignments will be monitored closely. There will be regular end of topic tests and a mock exam at the end of year 12 will inform us of the progress you make and whether you continue with biology in year 13.

Year 13 Biology

Module 5: Communication, Homeostasis and Energy

Includes:

Communication and homeostasis
Excretion as an example of homeostatic control
Neuronal and Hormonal communication
Plant and animal responses
Photosynthesis and Respiration.

Module 6: Genetics, Evolution and Ecosystems

Includes:

Cellular control
Patterns of inheritance
Manipulating genomes
Cloning and biotechnology
Ecosystems, Populations and sustainability.

Paper		Marks	Duration	Weighting	
Paper 1	Biological processes	100	2 hr 15 min	37%	
	Section A	Multiple choice			15
	Section B	Structured questions and extended response questions covering theory and practical skills			85
Paper 2	Biological diversity	100	2 hr 15 min	37%	
	Section A	Multiple choice			15
	Section B	Structured questions and extended response questions covering theory and practical skills			85
Paper 3	Unified biology	70	1 hr 30 min	26%	
	Structured questions and extended response questions covering theory and practical skills	70			

How will you be assessed?

Practical endorsement for biology:

In addition to the 3 written exam papers, candidates complete a minimum of 12 practical activities throughout the two years to demonstrate practical competence. The performance is reported separately from the A-level grade as a pass/fail by the teacher.

See Dr. R. Del Buono for further details.