



A Level Biology

During this A level Biology course students will be encouraged to:

- develop an interest in, an enthusiasm for biology, including developing an interest in further study and careers in biology.
- appreciate how society makes decisions about scientific issues and how the sciences contribute to the success of the economy and society.
- develop essential knowledge and understanding of different areas of biology and how they relate to each other.

Entry requirements

You need to have achieved at least a 6-6 in GCSE Science or a 6 in GCSE Biology.
 You also require a 6 in GCSE Mathematics, a 4 in GCSE English and overall 5 GCSEs of 5 or above.
 When considering A level biology it is important to realise that a minimum of 10% of the final exams are based on mathematical skills so a sound knowledge of GCSE mathematics is essential.
 You also have to be able to write in a logical, coherent and concise manner for the practical aspect of the course which accounts for a minimum of 15% of the final exam mark.

Overview of A Level in Biology A (H420)

Learners must complete all components (01, 02, 03 and 04).

Content Overview Content is split into six teaching modules:	Assessment Overview	
Module 1 – Development of practical skills in biology	Biological processes (01) 100 marks 2 hour 15 minutes written paper Assesses content from modules 1, 2, 3 and 5.	37% of total A level
Module 2 – Foundations in biology	Biological diversity (02) 100 marks 2 hour 15 minutes written paper Assesses content from modules 1, 2, 4 and 6.	37% of total A level
Module 3 – Exchange and transport	Unified biology (03) 70 marks 1 hour 30 minutes written paper Assesses content from all modules (1-6).	26% of total A level
Module 4 – Biodiversity, evolution and disease	Practical endorsement in biology (04)* (not an examination assessment) *The Practical Endorsement requires a minimum of 12 practical activities to be completed and passed by the end of the course.	Reported separately
Module 5 – Communication, homeostasis and energy		
Module 6 – Genetics, evolution and ecosystems		

This course is divided into topics, each covering different key concepts in biology. Applications of biology are covered throughout the A level course. You will also have the opportunity to use ICT to reinforce your learning and understanding.

What will you study?

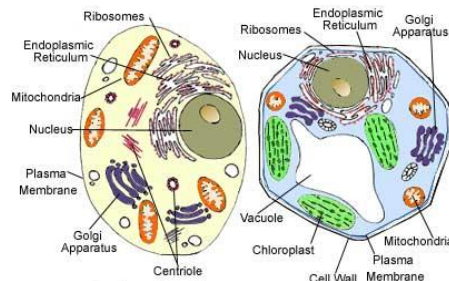
Module 1 – Development of practical skills in biology

- 1.1 Practical skills assessed in a written examination
- 1.2 Practical skills assessed in the practical endorsement



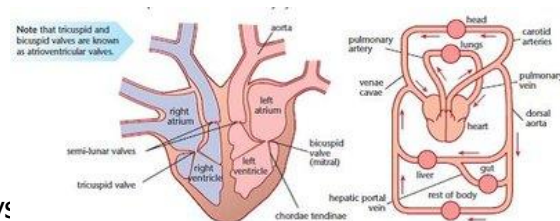
Module 2 – Foundations in biology

- 2.1.1 Cell structure
- 2.1.2 Biological molecules
- 2.1.3 Nucleotides and nucleic acids
- 2.1.4 Enzymes
- 2.1.5 Biological membranes
- 2.1.6 Cell division, cell diversity and cellular organisation



Module 3 – Exchange and transport

- 3.1.1 Exchange surfaces
- 3.1.2 Transport in animals
- 3.1.3 Transport in plants

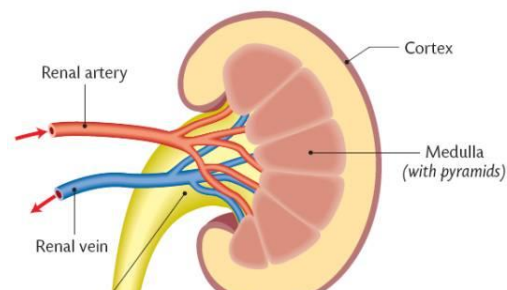


Module 4 – Biodiversity, evolution and disease

- 4.1.1 Communicable diseases, disease prevention and the immune system
- 4.2.1 Biodiversity
- 4.2.2 Classification and evolution

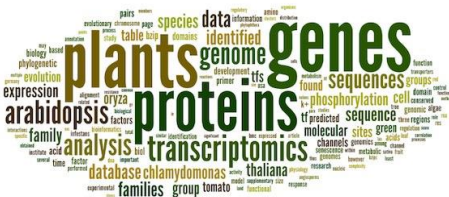
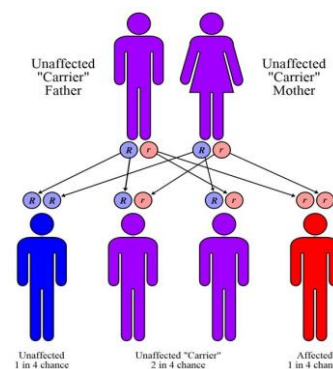
Module 5 – Communication, homeostasis and energy

- 5.1.1 Communication and homeostasis
- 5.1.2 Excretion as an example of homeostatic control
- 5.1.3 Neuronal communication
- 5.1.4 Hormonal communication
- 5.1.5 Plant and animal responses
- 5.2.1 Photosynthesis
- 5.2.2 Respiration



Module 6 – Genetics, evolution and ecosystems

- 6.1.1 Cellular control
- 6.1.2 Patterns of inheritance
- 6.1.3 Manipulating genomes
- 6.2.1 Cloning and biotechnology
- 6.3.1 Ecosystems
- 6.3.2 Populations and sustainability



Where could A level biology take you?

Having A level biology is very impressive in a variety of ways, offering you access to a huge range of options for both further education and careers. Possible career options with A level biology include food scientist, biomedical sciences, medicine, dentistry, nursing, and ophthalmology to name a few.