



## Sixth Form Subject Guide

# BIOLOGY

### ★★★ CAREERS RELATED TO STUDYING THIS SUBJECT

There are many directions that you can take for careers using your Biology studies, the Biology-specific and general skills you will acquire throughout the course means biologists are versatile and competitive within the job market. From studying Biology you gain a wide range of transferable skills, you have curiosity and an investigative nature which are valuable to a wide range of industries. Specific Biology related careers could include (but are not limited to): healthcare, environmental conservation, education, biotechnology, forensic science, government policy, economics, or pharmaceuticals.

### ★★★ A LEVEL COURSE CONTENT

Cambridge International AS & A Level Biology encourages learners to explore their subject in depth. The syllabus has been designed, in consultation with teachers and universities, to help learners develop not only subject knowledge, but also a strong understanding of some of the key concepts that are critical to mastering the subject.

Biology: AS Level (Year 12)	
<ul style="list-style-type: none"> <li>Cell Structure</li> <li>Biological Molecules</li> <li>Enzymes</li> <li>Cell Membranes and Transport</li> <li>The Mitotic Cell Cycle</li> <li>Nucleic Acids and Protein Synthesis</li> </ul>	<ul style="list-style-type: none"> <li>Transport in Plants</li> <li>Transport in Mammals</li> <li>Gas Exchange and Smoking</li> <li>Infectious Disease</li> <li>Immunity</li> </ul>
Biology: A2 Level (Year 13)	
<ul style="list-style-type: none"> <li>Energy and Respiration</li> <li>Photosynthesis</li> <li>Homeostasis</li> <li>Control and Coordination</li> </ul>	<ul style="list-style-type: none"> <li>Inherited Change</li> <li>Selection and Evolution</li> <li>Biodiversity, Classification, and Conservation</li> <li>Genetic Technology</li> </ul>

### ★★★ A LEVEL METHODS OF ASSESSMENT

Assessment Component	Weighting	
	AS Level	A Level
Paper 1: [AS Syllabus] Multiple Choice (1 hour 15 minutes)	31%	15.5%
Paper 2: [AS Syllabus] Longer Structured Questions (1 hour 15 minutes)	46%	23%
Paper 3: Advance Practical Skills (2 hours) • Practical Test under exam conditions in the Laboratory.	23%	11.5%
Paper 4: [AS & A2 Syllabus] Longer Structure Questions (2 hours)	N/A	38.5%
Paper 5: Planning, Analysis and Evaluation (1 hour 15 minutes) • Based on Experimental Skills.	N/A	11.5%

### ★★★ METHODS OF STUDY FOR A LEVEL

Biology is a practical subject therefore students are required to develop both an understanding of biological concepts and practical skills required to conduct biological experiments.

Discussion of concepts using chemical terminology forms a significant part of lesson activities as well as quantitative reasoning, 3D modelling, computer aided simulations, as well as written question-based activities.

Progress is monitored through performance in lessons, homework activities, and more formal written and practical based class tests.

Independent study forms an important part of the successful student in Biology and, therefore, it is an expectation that the number of hours of independent study at least matches the number of hours of in-class study per week.

### ★★★ ENTRY REQUIREMENTS FOR A LEVEL

Single Award Biology – Grade B

Coordinated Science – Grade BB