

AS/A Level

Biology 9700

A and AS Level Biology builds on the skills acquired at IGCSE (or equivalent) level. The syllabus includes the main theoretical concepts which are fundamental to the subject, a section on some current applications of biology, and a strong emphasis on advanced practical skills. Practical skills are assessed in a timetabled practical examination. The emphasis throughout is on the understanding of concepts and the application of biology ideas in novel contexts as well as on the acquisition of knowledge. The course will foster creative thinking and problem-solving skills which are transferable to any future career path, and A and AS Level Biology is ideal for students who want to study biology or a wide variety of related subjects at university or to follow a career in science.

<http://www.cie.org.uk/profiles/students> : This is the “homepage” for Cambridge students. Go there and become very proactive. This is a great place to start if you have never taken an AICE class before.

<http://www.cie.org.uk/docs/countries/usa/ACCcreditRecsMar2007.pdf> : This will show you what you can convert your AICE classes into for college.

<http://www.cambridgestudents.org.uk/subjectpages/biology/> : Go to this website and print or save a copy of the revision checklist. You may want to look it over and decide what you want to print. This is a very helpful packet!

Units for AS Level

1	A, E	Cells and Cell Division : The structure of eukaryotic and prokaryotic cells, and an outline of the functions of organelles; mitosis and its significance, Section A, Cell Structure and Section E, Cell Division
2	B, D	Molecules and Membranes : The structures and roles of biological molecules and water, and the structure and roles of cell membranes Section B, Biological Molecules and Section D, Transport across Membranes
3	C, E, F	Enzymes, DNA and Protein Synthesis : The activity of enzymes, and the control of protein synthesis by DNA, Section C, Enzymes and Section F, Genetic Control
4	G, H	Transport and Gas Exchange Transport systems in plants and mammals, and gas exchange in humans : Section G, Transport and Section H, Gas Exchange
5	I, J, K	Interrelationships : The relationship between pathogens and humans, including immunity, and an outline of energy transfer and the nitrogen cycle in natural communities.

Units for A Level

1	L	Energy and Respiration : Understanding the processes of anaerobic and aerobic respiration and how they relate to the breakdown of food and the production of ATP.
2	M, T	Photosynthesis : Understand the process of photosynthesis and its limiting factors.
3	N	Regulation and Control : The importance of homeostasis, control of metabolic wastes and water, nervous and hormonal communication, communication in flowering plants.
4	O, R, S	Inherited Change and Gene Technology : The passage of info from parent to offspring, the nature of genes, alleles, monohybrid and dihybrid crosses, Recombinant DNA.
5	P, Q	Selection and Evolution : Natural and artificial selection.