

KS5 Biology Curriculum Overview



Examination Board: AQA

Further Information:

<https://filestore.aqa.org.uk/resources/biology/specifications/AQA-7401-7402-SP-2015.PDF>

<https://www.senecalearning.com/>

Additional Support: [Intervention sessions](#)

Biology A-Level Year 1			
Unit 1 Biological Molecules	Unit 2 Cells	Unit 3 Organisms Exchange Substances	Unit 4 Genetic Information and Variation
Monomers and polymers, carbohydrates, lipids, proteins, nucleic acids, ATP, water, inorganic ions	Cell structure, microscopes, mitosis, the cell cycle, transport across cell membranes, cell recognition and the immune system	Surface area to volume ratio, gas exchange, enzymes and digestion, mass transport in plants and animals	DNA, genes and chromosomes, protein synthesis, mutation, diversity and adaptation, taxonomy, biodiversity
Written Assessment		Practical Assessment	
<p>There will be 2 written papers.</p> <p>Each paper is 1 hour and 30 minutes long.</p> <p>Each paper covers any aspect from units 1-4</p> <p>Paper 1: 50% AS. Comprised of 65 marks of short answer questions and 10 marks comprehension question. Paper is worth a total of 75 marks.</p> <p>Paper 2: 50% AS. Comprised of 65 marks of short answer questions and 10 marks of extended response questions. Paper is worth a total of 75 marks.</p>		<p>Assessment of relevant practical skills will be covered in these written papers based on a minimum of 6 practical investigations which will have been completed by the students throughout the year.</p> <p>A-level grades will be based only on marks from written exams.</p> <p>A separate endorsement of practical skills will be taken alongside the A-level.</p> <p>This will be assessed by teachers and will be based on direct observation of students' competency in a range of skills that are not assessable in written exams</p>	

Year 12

Autumn Term: 3.1.Biological Molecules; 3.2 Cells

Summer Term: 3.3 Organisms exchange substances with their environment;
3.4 Genetic information, variation and relationships between organisms

Summer Term: Complete 3.4 Genetic information, variation and relationships between organisms
3.1 – 3.4 Revision

Biology A-Level Year 2

Unit 5 Energy transfers in and between organisms	Unit 6 Organisms respond to changes in their environment	Unit 7 Genetics, populations, evolution and ecosystems	Unit 8 The control of gene expression
Photosynthesis, respiration, energy and ecosystems, nutrient cycles.	Stimuli, nervous coordination, skeletal muscles, homeostasis	Inheritance, populations, evolution may lead to speciation, populations in ecosystems	Alteration of the sequence bases in DNA, control of gene expression, genome projects, gene technologies
Written Assessment		Practical Assessment	
<p>The course will be assessed by 3 written papers at the end of Year 13.</p> <p>Each paper is 2 hours long.</p> <p>Paper 1: Any content from units 1-4. 91 marks. 35% of A level. 76 marks from a mixture of short and long answer questions and 15 marks from extended response questions.</p> <p>Paper 2: Any content from units 1-5, including relevant practical skills. 91 marks. 35% of A level. 76 marks from a mixture of short and long answer questions and 15 marks from comprehension question.</p> <p>Paper 3: Any content from units 1-8, including relevant practical skills. 78 marks. 30% of A level. 38 marks from structured questions, including practical techniques. 15 marks from critical analysis of given experimental data. 25 marks from one essay from a choice of two titles</p>		<p>A-level grades will be based only on marks from written exams.</p> <p>A separate endorsement of practical skills will be taken alongside the A-level.</p> <p>This will be assessed by teachers and will be based on direct observation of students' competency in a range of skills that are not assessable in written exams</p>	

Year 13

Autumn Term: 3.5 Energy transfers in and between organisms
3.6 Organisms respond to changes in their internal and external environments

Spring Term: 3.7 Genetics, populations, evolution and ecosystems; 3.8 The control of gene expression

Summer Term: Complete 3.8 The control of gene expression
3.1 – 3.8 Revision