

Curriculum Overview

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 7	1. How Science Works Introduction to Science & Safety in the lab 2. Cells		1. Body systems 2. Nutrition and digestion		1. Reproduction 2. Plants and photosynthesis	
Year 8	1. Cells 2. Gas exchange		1. Respiration 2. Evolution		1. DNA 2. Ecosystem	
Year 9	1. Cells 2. Health and disease		1. Enzymes 2. Cell processes		1. Genetics and inheritance 2. Ecology	
Year 10	1. Organisation 2. Infection and response		1. Bioenergetics 2. Variation and evolution		1. Cellular genetics 2. Biodiversity	
Year 11	1. Homeostasis 2. Homeostasis 2		1. Paper 1 Revision Cell Biology Organisation Infectious and Response Bioenergetics 2. Paper 2 Revision Homeostasis		1. Exams 2. Exams	

		Inheritance, Variation and Evolution Ecology	
Year 12	<ol style="list-style-type: none"> 1. Development of practical skills Foundation in biology 2. Development of practical skills Exchange and transport 	<ol style="list-style-type: none"> 1. Development of practical skills Biodiversity and Evolution, 2. Development of practical skills Classification and Evolution 	<ol style="list-style-type: none"> 1. Development of practical skills Communicable Diseases 2. Development of practical skills Disease prevention and immune system
Year 13	<ol style="list-style-type: none"> 1. Development of practical skills Cellular Control and patterns of inheritance 2. Development of practical skills Manipulating genomes, Biotechnology and Ecosystems 	<ol style="list-style-type: none"> 1. Development of practical skills Communication and Homeostasis 2. Development of practical skills Photosynthesis and Respirations 	<ol style="list-style-type: none"> 1. Revision 2. Exams

Homework Focus

All homework in science is set on Seneca, linked with the topics taught during the term

<https://senecalearning.com/en-GB/>

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Year 10	1. Organisation 2. Infection and response		1. Bioenergetics 2. Variation and evolution		1. Cellular genetics 2. Biodiversity	

Year 11	<ol style="list-style-type: none"> 1. Homeostasis 2. Homeostasis 2 	<ol style="list-style-type: none"> 1. Paper 1 Revision Cell Biology Organisation Infectious and Response Bioenergetics 2. Paper 2 Revision Homeostasis Inheritance, Variation and Evolution Ecology 	<ol style="list-style-type: none"> 1. Exams 2. Exams
Year 12	<ol style="list-style-type: none"> 1. Development of practical skills Foundation in biology 2. Development of practical skills Exchange and transport 	<ol style="list-style-type: none"> 1. Development of practical skills Biodiversity and Evolution, 2. Development of practical skills Classification and Evolution 	<ol style="list-style-type: none"> 1. Development of practical skills Communicable Diseases 2. Development of practical skills Disease prevention and immune system
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Enrichment Opportunities

	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13
Suggested Reading							
Suggested Viewing	BBC Bitesize https://www.bbc.co.uk/bitesize/subjects/z4882hv Oak Academy https://classroom.thenational.academy/subject-s-by-key-stage/key-stage-3/subjects/science	BBC Bitesize https://www.bbc.co.uk/bitesize/subjects/z4882hv Oak Academy https://classroom.thenational.academy/subject-s-by-key-stage/key-stage-3/subjects/science	BBC Bitesize Oak Academy https://classroom.thenational.academy/subject-s-by-key-stage/key-stage-4/subjects/biology	BBC Bitesize Combined: https://www.bbc.co.uk/bitesize/topics/zthssrd Triple: https://www.bbc.co.uk/bitesize/examspecs/zpgc/bk7 Physics and maths tutor: https://www.physicsandmathstutor.com/biology-revision/qcse-ag	BBC Bitesize Combined: https://www.bbc.co.uk/bitesize/topics/zthssrd Triple: https://www.bbc.co.uk/bitesize/examspecs/zpgc/bk7 Physics and maths tutor: https://www.physicsandmathstutor.com/biology-revision/qcse-ag	Physics and maths tutor: https://www.physicsandmathstutor.com/biology-revision/a-level-ocr-a/ Snaprevise: https://snaprevise.co.uk/	Physics and maths tutor: https://www.physicsandmathstutor.com/biology-revision/a-level-ocr-a/ Snaprevise: https://snaprevise.co.uk/



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Suggested Experiences	London Zoo Science Museum Natural History Museum Zoo Lab	Wonder Lab Science Museum Natural History Museum Zoo Lab Field Trip	Field Trip Science Museum Natural History Museum	Field Trip Science Museum Natural History Museum	Field Trip Science Museum Natural History Museum Sixth forms open days	Kew Gardens Science Museum Natural History Museum University Open days	Kew Gardens Science Museum Natural History Museum University Open days

Links to the KS3 National Curriculum

The National Curriculum	Welling Reference to the National Curriculum
<p>Year7: Cells and organisation</p> <p>Year 8: Cell and Organisation , Gas exchange system</p> <p>Year 9: Cell and Organisation , Health, disease and the development of medicines</p> <p>Year 10: Organisation, Health, disease and the development of medicines</p> <p>Year 11: Coordination and control</p> <p>Year 12: Transport systems, Cell biology</p> <p>Year 13: Evolution, inheritance and variation</p>	<p>Autumn Term</p>
<p>Year7: The skeletal and muscular systems, Nutrition and digestion</p> <p>Year 8: Gas exchange systems , Genetics and evolution</p>	<p>Spring Term</p>



<p>Year 9: Cell biology</p> <p>Year 10: Photosynthesis, Cellular respiration, Evolution, inheritance and variation</p> <p>Year 11: Paper 1 Revision Cell Biology Organisation Infectious and Response Bioenergetics Paper 2 Revision Homeostasis Inheritance, Variation and Evolution Ecology</p> <p>Year 12: Ecosystems, Evolution, inheritance and variation</p> <p>Year 13: Coordination and control, Photosynthesis, Respiration</p>	
<p>Year 7: Reproduction, Photosynthesis</p> <p>Year 8: Chromosomes, DNA and genes, Interactions and interdependencies</p> <p>Year 9: Inheritance, chromosomes, DNA and genes, , Interactions and interdependencies</p> <p>Year 10: Genetics and evolution, Relationships in an ecosystem</p> <p>Year 11: Exams</p>	<p>Summer Term</p>



Year 12: Health, disease and the development of medicines,	
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Year 13: Revision and Exams	
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Links to the Exam Specification

The Exam Specification	Welling Reference to the Exam Specification
KS4: GCSE AQA KS5: A Level OCR A	Autumn Term
KS4: GCSE AQA KS5: A Level OCR A	Spring Term
KS4: GCSE AQA KS5: A Level OCR A	Summer Term