

# 21/22: Year 10 Curriculum and Assessment Map

Year9/10

Subject: Combined Science

Intent

The GCSE Combined Science encourages the development of knowledge and understanding in science, through opportunities in working scientifically. The curriculum follows a spiral design to prepare students for external examination. The design of the curriculum facilitates the conscious idea of over teaching to cater for the individual needs of our students. In year 9 students will start the programme of study in preparing for their GCSE examination. In year 10 students will continue to develop their knowledge and deepen their understanding across the disciplines of Biology, Chemistry and Physics. Students will first cover paper one topics in each subject area to build fundamental concepts and principles necessary to progress to paper two topics. Students will take part in purposeful practical activities designed to deepen and broaden their understanding of the skills required for their GCSE Science. Their knowledge will also be further strengthened by weekly targeted homework task.

All lessons will provide bespoke teaching, focussing on individual learning needs and the development of the science vocabulary. Both years 9/10 will be taught as a whole teaching group. Students will be given the opportunity to explore scientific concepts in greater depth and develop key skills which they can draw on to explain, analyse and evaluate concepts in science and make links to unfamiliar context as they follow the programme of study.

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September - December

January - March

April - July

<p><b>Biology PAPER 1</b> Cell Biology; Organisation; Infection and response; and Bioenergetics.</p>	<p><b>Assessment Objective</b> <b>Demonstrate knowledge and understanding of: scientific ideas; scientific techniques and procedures</b></p>	<p><b>Biology Paper 2</b> Biological responses Genetics and reproduction Ecology</p>	<p><b>Assessment Objective</b> <b>Demonstrate knowledge and understanding of: scientific ideas; scientific techniques and procedures</b></p>	<p><b>Physics Paper 2</b> Physics topics: Forces; Waves; Magnetism Electromagnetism</p>	<p><b>Assessment Objective</b> <b>Demonstrate knowledge and understanding of: scientific ideas, scientific techniques and procedures</b></p>
<p><b>Chemistry Paper 1</b> Atomic structure and the periodic table; Bonding, structure, and the properties of matter; Quantitative chemistry; Chemical changes; and Energy changes.</p>	<p><b>Apply knowledge and understanding of: scientific ideas; scientific enquiry, techniques and procedures.</b></p> <p><b>Analyse information and ideas to: interpret and evaluate; make judgments and</b></p>	<p><b>Chemistry Paper 2</b> Rates, equilibrium and organic chemistry Analysis and the Earth's resources</p> <p><b>Physics Paper 1</b> Energy and Energy Resources, Particles at Work and Atomic structure</p>	<p><b>Apply knowledge and understanding of: scientific ideas; scientific enquiry, techniques and procedures.</b></p> <p><b>Analyse information and ideas to: interpret and evaluate; make judgments and draw conclusions; develop and improve</b></p>	<p><b>Apply knowledge and understanding of: scientific ideas; scientific enquiry, techniques and procedures.</b></p> <p><b>Analyse information and ideas to: interpret and evaluate; make judgments and draw conclusions; develop and improve experimental procedure</b></p>	<p><b>Apply knowledge and understanding of: scientific ideas; scientific enquiry, techniques and procedures.</b></p> <p><b>Analyse information and ideas to: interpret and evaluate; make judgments and draw conclusions; develop and improve experimental procedure</b></p>
		<p>REVISION</p>			<p>REVISION</p>

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Impact	REVISION	draw conclusions; develop and improve experimental procedure				REVISION
	AP1	AP2	AP3			
	<i>End Autumn 2 Diagnostic Assessment</i>	<i>End Spring 1 Diagnostic Assessment</i>	<i>End Summer 1 Diagnostic Assessment</i>			