



## 22/23 Curriculum Overview Science Faculty **student friendly version**

	Autumn	Spring	Summer
Year 7	<ul style="list-style-type: none"> <li>Working Scientifically</li> <li>Chemistry Fundamentals</li> <li>Cells &amp; Movement</li> <li>Energy...</li> </ul>	<ul style="list-style-type: none"> <li>...Energy</li> <li>Photosynthesis &amp; Energy in Biomass</li> <li>Forces</li> <li>Separating Mixtures</li> <li>Human Repro + Variation...</li> </ul>	<ul style="list-style-type: none"> <li>...Human Repro + Variation</li> <li>Magnetism</li> <li>End of Year Assessment</li> <li>Metals and Acids</li> </ul>
Year 8	<ul style="list-style-type: none"> <li>Chemistry Fundamentals</li> <li>Forces &amp; Machines</li> <li>Photosynthesis, Breathing &amp; Respiration</li> <li>The Periodic Table...</li> </ul>	<ul style="list-style-type: none"> <li>Chemical Reactions</li> <li>Magnetism</li> <li>Climate and Earth's Resources.</li> <li>Evolution and Inheritance</li> <li>Heating and Cooling</li> </ul>	<ul style="list-style-type: none"> <li>Digestion and Lifestyle</li> <li>End of Year Assessment</li> <li>Electricity</li> </ul>
Year 9	<ul style="list-style-type: none"> <li>Cell Biology</li> <li>Transport in Cells</li> <li>Atomic Structure</li> <li>Periodic Table</li> <li>Energy</li> </ul>	<ul style="list-style-type: none"> <li>States of matter</li> <li>Rates of Reaction</li> <li>Chromatography</li> <li>Organisation</li> <li>Infection and Response</li> </ul>	<ul style="list-style-type: none"> <li>Electricity</li> <li>End of Year Mock Exams</li> <li>Ecology</li> </ul>
Year 10	<ul style="list-style-type: none"> <li>Exchange surfaces &amp; Cell Cycle</li> <li>Bioenergetics</li> <li>Bonding</li> <li>Energy changes</li> <li>Organisation</li> <li>Infection and Response</li> </ul> <p><b><u>Separate Science Only</u></b></p>	<ul style="list-style-type: none"> <li>Quantitative Chemistry</li> <li>Acids</li> <li>Electricity 2- Mains</li> <li>Homeostasis</li> <li>Radiation</li> <li>Energy Changes</li> <li>Electrolysis</li> </ul> <p><b><u>Separate Science Only</u></b></p> <ul style="list-style-type: none"> <li>Bioenergetics</li> </ul>	<ul style="list-style-type: none"> <li>Forces</li> <li>Organic Chemistry &amp; Pollutants</li> <li>End of Year Mock Exams</li> </ul> <p><b><u>Separate Science Only</u></b></p> <ul style="list-style-type: none"> <li>Ecology</li> </ul>

	<ul style="list-style-type: none"> <li>• Exchange surfaces &amp; Cell Cycle</li> <li>• Organisation</li> <li>• Infection and Response</li> </ul>	<ul style="list-style-type: none"> <li>• Homeostasis</li> </ul>	<ul style="list-style-type: none"> <li>• End of Year Mock Exams</li> </ul>
Year 11	<ul style="list-style-type: none"> <li>• Inheritance, Variation, Evolution</li> <li>• Homeostasis &amp; Ecology</li> <li>• Equilibrium, Using Resources &amp; Rates of Reaction</li> <li>• Chemical change, Organic chemistry, Chemical analysis &amp; Atmosphere</li> <li>• Mock Exams</li> <li>• Forces &amp; Waves</li> <li>•</li> </ul> <p><b><u>Separate Science Only</u></b></p> <ul style="list-style-type: none"> <li>• Digestion</li> <li>• Bioenergetics</li> <li>• Cell biology, Remainder of Organisation</li> <li>• Infection and Response.</li> </ul>	<ul style="list-style-type: none"> <li>• ...Forces &amp; Magnetism</li> <li>• Atomic structure &amp; The Periodic Table.</li> <li>• Bonding &amp; Structure</li> <li>• Quantitative Chemistry, Chemical &amp; Energy changes.</li> <li>• Energy &amp; Electricity</li> <li>• Particle model of matter &amp; Atomic structure.</li> <li>• Cell biology</li> </ul> <p><b><u>Separate Science Only</u></b></p> <ul style="list-style-type: none"> <li>• Inheritance, Variation &amp; Evolution</li> <li>• Separate Ecology</li> </ul>	<ul style="list-style-type: none"> <li>• Organisation, Infection and response</li> <li>• Bioenergetics.</li> <li>• GCSE Exams (6 exams) &amp; Success!</li> </ul> <p><b><u>Separate Science Only</u></b></p> <ul style="list-style-type: none"> <li>• Homeostasis</li> <li>• GCSE Exams (6 exams) &amp; Success!</li> </ul>

Year 10 Astronomy	<ul style="list-style-type: none"> <li>• Planet Earth</li> <li>• The Earth-Moon-Sun System</li> <li>• The Moon</li> </ul>	<ul style="list-style-type: none"> <li>• Exploring the Solar System</li> <li>• Celestial Observations</li> <li>• The Sun</li> </ul>	<ul style="list-style-type: none"> <li>• Stellar Evolution</li> <li>• Galaxies</li> <li>• Kepler's laws</li> </ul>
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Year 12 Biology	<ul style="list-style-type: none"> <li>• Biological Molecules</li> <li>• Cell Structure</li> </ul>	<ul style="list-style-type: none"> <li>• ... Differentiation &amp; Mitosis</li> <li>• Exchange surfaces</li> </ul>	<ul style="list-style-type: none"> <li>• Biodiversity</li> <li>• Classification &amp; Evolution</li> </ul>
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	<ul style="list-style-type: none"> <li>• Nucleic acids &amp; Enzymes</li> <li>• Membranes</li> <li>• Differentiation &amp; Mitosis...</li> </ul>	<ul style="list-style-type: none"> <li>• Transport in Animals</li> <li>• Transport in Plants</li> <li>• Disease, Prevention &amp; Immunity</li> </ul>	<ul style="list-style-type: none"> <li>• End of Year Mock Exams</li> </ul>
Year 13 Biology	<ul style="list-style-type: none"> <li>• Communication and Homeostasis</li> <li>• Excretion</li> <li>• Ecosystems</li> <li>• Populations and sustainability</li> <li>• Photosynthesis &amp; Respiration</li> <li>• Neuronal &amp; Hormonal Control</li> </ul>	<ul style="list-style-type: none"> <li>• Animal responses</li> <li>• Muscle Contraction</li> <li>• Plant responses</li> <li>• Cellular Control</li> <li>• Patterns of Inheritance</li> <li>• Manipulating genomes</li> </ul>	<ul style="list-style-type: none"> <li>• Cloning and Biotechnology</li> <li>• A level Exams &amp; Success!</li> </ul>

Year 12 Chemistry	<ul style="list-style-type: none"> <li>• Moles and Reactions</li> <li>• Acids and bases</li> <li>• Redox</li> <li>• Electrons and bonding</li> <li>• Periodic table</li> </ul>	<ul style="list-style-type: none"> <li>• Physical Chemistry</li> <li>• Organic Chemistry</li> <li>• Halo &amp; alcohol</li> <li>• Organic synthesis and analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Year 13 Rates</li> <li>• PAG 12 – Research PAG</li> <li>• End of Year Mock Exams</li> </ul>
Year 13 Chemistry	<ul style="list-style-type: none"> <li>• Equilibria</li> <li>• Acids, bases and buffers</li> <li>• Enthalpy and Entropy</li> <li>• Redox &amp; Electrode Potentials</li> <li>• Transition elements</li> </ul>	<ul style="list-style-type: none"> <li>• Aromatic Chemistry</li> <li>• Carbonyls and carboxylic acids</li> <li>• Amines Amino acids</li> <li>• Proteins</li> <li>• Synthesis</li> <li>• Spectroscopy</li> </ul>	<ul style="list-style-type: none"> <li>• A level Exams &amp; Success!</li> </ul>

Year 12 Physics	<ul style="list-style-type: none"> <li>• Foundations of Physics</li> </ul>	<ul style="list-style-type: none"> <li>• Newton's laws</li> <li>• Charge &amp; current</li> </ul>	<ul style="list-style-type: none"> <li>• Electromagnetic waves</li> </ul>
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	<ul style="list-style-type: none"> <li>• Kinematics</li> <li>• Projectile motion</li> <li>• Equilibrium</li> <li>• Energy</li> <li>• Materials</li> </ul>	<ul style="list-style-type: none"> <li>• Circuits</li> <li>• Wave properties</li> <li>• Diffraction</li> <li>• Stationary waves</li> </ul>	<ul style="list-style-type: none"> <li>• Quantum physics</li> <li>• Research PAG</li> <li>• End of year mock exams</li> </ul>
Year 13 Physics	<ul style="list-style-type: none"> <li>• Thermal Physics</li> <li>• Circular motion</li> <li>• Gravitational fields</li> <li>• Stars &amp; Cosmology</li> <li>• Electric fields</li> <li>• Magnetic Fields</li> </ul>	<ul style="list-style-type: none"> <li>• Capacitance</li> <li>• Particle physics</li> <li>• Radioactivity</li> <li>• Nuclear physics</li> <li>• Medical imaging</li> </ul>	<ul style="list-style-type: none"> <li>• A level Exams &amp; Success!</li> </ul>

Year 12 Psychology	<ul style="list-style-type: none"> <li>• Research methods</li> <li>• Approaches</li> <li>• Social influence</li> </ul>	<ul style="list-style-type: none"> <li>• Practical psychology</li> <li>• Memory</li> <li>• Attachments</li> </ul>	<ul style="list-style-type: none"> <li>• Psychopathology</li> <li>• Practical psychology</li> <li>• End of Year Mock Exams</li> </ul>
Year 13 Psychology	<ul style="list-style-type: none"> <li>• Issues and debates</li> <li>• Biopsychology</li> <li>• Gender</li> </ul>	<ul style="list-style-type: none"> <li>• Schizophrenia</li> <li>• Forensics</li> <li>• Research methods</li> </ul>	<ul style="list-style-type: none"> <li>• A level Exams &amp; Success!</li> </ul>