



Year 9 is part of Key Stage 4, in Science. The course starts with an introductory module that introduces learners to the scientific method and how to process data. All material studied in this year can be examined at GCSE level in year 11.

TERM	UNIT	WHAT WILL YOU BE LEARNING?	ARE YOU PREPARED FOR LEARNING?
1	<i>Introduction Module</i> <i>C1.1 The Particle model</i> <i>C1.2 Atomic Structure</i>	<p>In the introduction module you will learn about the scientific method. How to collect, record and process data. All of these skills are essential for the practical aspect of your course and also for examination questions based on practical techniques. It is important that you follow the rules given so that you learn to present graphs etc properly.</p> <ul style="list-style-type: none"><li>• Introducing particles</li><li>• Chemical and physical changes</li><li>• Limitations of the particle model</li><li>• Atomic structure and isotopes</li><li>• Developing the atomic model</li></ul>	<p>Your exercise book will be clearly presented and all work will be complete.</p> <p>Practical work will be written up and evidence of required practical work will be kept in your progress folder.</p> <p>You will come to lesson with stationery, books and relevant homework.</p> <p>Are you using a revision guide to support your studies.</p>
2	<i>C2.1 Purity and Separating mixtures</i>	<ul style="list-style-type: none"><li>• Relative formula mass</li><li>• Empirical formula</li><li>• Pure and impure substances</li><li>• Filtration and crystallisation</li><li>• Distillation</li><li>• Chromatography</li><li>• Purification and checking purity</li></ul>	
3	<i>C2.2 Bonding</i>	<ul style="list-style-type: none"><li>• Metals and non-metals</li><li>• Electronic structures</li></ul>	

		<ul style="list-style-type: none"> <li>• Forming ions</li> <li>• Ionic compounds</li> <li>• Simple molecules</li> <li>• Giant covalent structures</li> <li>• Polymer molecules</li> <li>• Structure of metals</li> <li>• Atomic structure and the periodic table</li> </ul>	
4	<i>C2.3 Properties of materials</i>	<ul style="list-style-type: none"> <li>• Carbon</li> <li>• Changing state</li> <li>• Bulk properties of materials</li> <li>• Nanoparticles</li> </ul>	
5	<i>C3.1 Introducing chemical reactions</i>	<ul style="list-style-type: none"> <li>• Formulae of elements and molecules</li> <li>• Formulae of ionic compounds</li> <li>• Conservation of mass</li> <li>• Chemical equations</li> <li>• Half equations and ionic equations</li> <li>• The Mole</li> <li>• Mole calculations</li> </ul>	
6	C3.2 Energetics End of year exams	<ul style="list-style-type: none"> <li>• Exothermic and endothermic reactions</li> <li>• Reaction profiles</li> <li>• Calculating energy changes</li> </ul>	

At the end of each module students are set revision exercises to complete before taking a test.

At the end of each section there will be a synoptic test covering all material studied.

At the end of the year there will be a mock examination on all material studied so far.