

## Combined Science Chemistry GCSE Course Guide

	Year 10	Year 11
End of year 9	<p><b>CC01: Kinetic theory : paper 1</b></p> <ul style="list-style-type: none"> <li>- The key concepts of particle theory building on C2 (Particles) in KS3</li> </ul> <p><b>CC02: Atomic structure: both papers</b></p> <ul style="list-style-type: none"> <li>- Atomic structure builds on C2 (Particles) in KS3 and gives the basis for all reactions</li> </ul>	<p><b>Both papers: CC01, CC02, CC04, CC05, CC06, CC07, CC09</b></p> <p><b>Paper 1 only: CC03, CC08, CC10, CC11, CC13</b></p> <p><b>Paper 2 only: CC12, CC14, CC15, CC16, CC17</b></p>
Term one	<p><b>CC03: Separating mixtures paper 1</b></p> <ul style="list-style-type: none"> <li>- Builds on C4 (separating mixtures) from KS3 and allows students to trial safe practicals</li> </ul> <p><b>CC04: Periodic table both papers</b></p> <ul style="list-style-type: none"> <li>- Builds on from C2 (Particles) in KS3 and C6 (Earth Science) increasing the understanding of atoms</li> </ul> <p><b>CC05: Ionic bonding both papers</b></p> <ul style="list-style-type: none"> <li>- How compounds made from metals and non metals bond</li> </ul> <p><b>CC06: Covalent bonding both papers</b></p> <ul style="list-style-type: none"> <li>- How non-metals bond</li> </ul> <p><b>CC07: Identifying substances both papers</b></p> <ul style="list-style-type: none"> <li>- How metals bond</li> <li>- How to identify unknown substances using their properties</li> </ul>	<p><b>CC11: Electrolysis Paper 1</b></p> <ul style="list-style-type: none"> <li>- Builds on CC10 with purifying metals</li> <li>- More complex chemistry with time to revise it</li> <li>- Applying chemical theory to real life problems</li> <li>- Modern issue of planet sustainability</li> </ul> <p><b>CC12: Rates of reactions Paper 2</b></p> <ul style="list-style-type: none"> <li>- Lots of practical science</li> <li>- Uses their knowledge of reactions from year 10 to measure rate</li> </ul> <p><b>CC13: Reversible reactions and equilibria Paper 1</b></p> <ul style="list-style-type: none"> <li>- How to manipulate reactions to make the greatest profit or yield</li> </ul>
Term two	<p><b>CC08: Acids paper 1</b></p> <ul style="list-style-type: none"> <li>- Commonly examined with lots of experiments</li> <li>- Gives equation practise</li> </ul> <p><b>CC09: Calculations in Chemistry both papers</b></p> <ul style="list-style-type: none"> <li>- These sums use ratios and basic maths to work out quantities from reactions</li> <li>- Now students have done some practicals and understand equations they can start to embed the required maths skills</li> </ul>	<p><b>CC14: The periodic table Paper 2</b></p> <ul style="list-style-type: none"> <li>- Expanding on CC04 with experiments and demonstrations</li> <li>- Making predictions of reactions using chemical understanding</li> </ul> <p><b>CC15: Energy changes in reactions Paper 2</b></p> <ul style="list-style-type: none"> <li>- Practical based and quick</li> <li>- Using maths skills</li> </ul> <p><b>CC16: Fuels Paper 2</b></p> <ul style="list-style-type: none"> <li>- Modern issue of planet sustainability</li> <li>- Builds into CC17 with climate change and links with geography</li> </ul>
Term three	<p><b>CC10: Obtaining and using metals Paper 1</b></p> <ul style="list-style-type: none"> <li>- Builds on structure and bonding</li> <li>- Application of chemistry to careers</li> <li>- Some more practical work</li> <li>- Lots of equation practise – brings CC01, 03, 05 and 09 together</li> </ul>	<p><b>CC17: Earth and atmosphere science Paper 2</b></p> <ul style="list-style-type: none"> <li>- Links from CC16 and KS3 units on energy</li> <li>- Modern issue of planet sustainability</li> </ul>