



Key Learning Constructs to be developed over the academic year. – Core Knowledge	Scheme of Learning Autumn Term	Scheme of Learning Spring Term	Scheme of Learning Summer Term
<p>*there are barriers to reaction so reactions occur at different rates</p> <p>*energy is conserved in chemical reactions so can therefore be neither created or destroyed.</p>	<p>Part 1 Chemical Changes - Electrolysis</p> <p>Part 2 Energy Changes and Cells</p>	<p>Part 3 Rates of Reaction</p> <p>Part 4 Chemical Equilibrium</p>	<p>Part 5 Organic Chemistry 1</p> <p>Part 6 Organic Chemistry 2</p>
Hinterland Knowledge	Real examples of the APPLICATION of the content studied (eg the extraction of aluminium and BMW's hydrogen fuel programme)	Real examples of the APPLICATION of the content studied (eg the history behind Fritz Haber and his process to fix nitrogen in the manufacture of ammonia)	Real examples of the APPLICATION of the content studied (eg the trans - Atlantic development of nylon)
Assessment: -Formative Techniques	Use of whiteboards, hinge questions, recall questions.		
-Summative Pieces	End of Topic Tests	End of Topic Tests	End of Topic Tests and End of Year Assessment
Key Vocabulary	Key scientific terminology appropriate to each topic studied	Key scientific terminology appropriate to each topic studied	Key scientific terminology appropriate to each topic studied
Key Skills	Working Scientifically, relevant mathematical techniques (percentages, mean, mode, median etc) Graph plotting skills. Understanding variables and anomalies and their causes and effects	Working Scientifically, relevant mathematical techniques (percentages, mean, mode, median etc) Graph plotting skills. Understanding variables and anomalies and their causes and effects	Working Scientifically, relevant mathematical techniques (percentages, mean, mode, median etc) Graph plotting skills. Understanding variables and anomalies and their causes and effects
Opportunities Outside the taught Curriculum.	Careers, STEAM enrichment activities, educational visits	Careers, STEAM enrichment activities, educational visits	Careers, STEAM enrichment activities, educational visits

