

Long Term Plan: Chemistry Year 11

Half term	Unit title	Key knowledge/ Content to learn and retain	Essential skills to acquire (subject & generic)	Link to subject ethos and driver (rename)	Anticipated misconceptions	Links to previous KS	Links to future KS	Opportunity for stretch for high prior attainers	SMSC & British Values	Cultural Capital	Career Link
One	Atmospheric Chemistry	<p>The composition of the modern atmosphere and how this has changed from the formation of the Earth</p> <p>Human impact on the atmosphere, including greenhouse gases, climate change and global warming.</p> <p>The impact of major atmospheric</p>	<p>Use of timelines</p> <p>Extended Writing</p> <p>Reading for comprehension</p> <p>Evaluating the accuracy of data</p> <p>Using data to make predictions about the outcome of experiments</p> <p>Interpreting data presented</p>		<p>Many students believe that oxygen is the most plentiful gas in the atmosphere, rather than Nitrogen.</p> <p>Many students overestimate the concentration of carbon dioxide in the atmosphere</p> <p>Many students confuse global warming with climate change</p>	<p>In KS3 students studied the atmosphere and discussed the impact of human activity on the climate. This unit builds on this by introducing a more analytical and quantitative approach to exploring human impact on the atmosphere and environment</p>	<p>At A-Level, students will study the impact of CFCs and the mechanism by which they have contributed to loss of ozone.</p>	<p>Students may be asked to compare interventions based on compromise between their environmental and economic impacts.</p>	<p>The effects of climate change, how every day actions contribute to climate change and what interventions can be put in place to prevent climate catastrophe</p>	<p>The effects of climate change, how every day actions contribute to climate change and what interventions can be put in place to prevent climate catastrophe</p>	<p>Climate scientist</p> <p>Environmental campaigner</p> <p>Meteorologist</p>

		pollutants on human health and the environment	in tabular or graphical form								
Two	Using Resources	Finite and infinite resources Potable water and water treatment Life cycle assessments (Triple Only) Bioleaching and phytomining The use of alloys, polymers and composite materials The Harber Process	Safe use of laboratory equipment Interpreting data presented in tabular or graphical form Recording accurate data Simple calculations involving addition and subtraction Extended Writing Using data to evaluate and compare		The differences between potable and pure water	Students have previously studied the difference between finite and infinite resources, and this is extended in this unit; alongside the new concepts that are introduced.	At A-Level students will study processes such as the Harber Process in greater depth, and place it in its chemical and economical context.	Students could be tasked to carry out life cycle assessments of varying complexities	The social, economic and environmental impact of modern products, including how individual actions can have an impact on the environment	The social, economic and environmental impact of modern products, including how individual actions can have an impact on the environment	As the central science, Chemistry opens doors to a wide range of STEM field careers
Three	Half term three is dedicated to revision of Paper Two, in preparation for March PPEs										
Four	Half Term Four is dedicated to revision of Paper One Topics										
Five	Revision for final exams - Paper One is normally held toward the start of the exam season before the half term break										
Six	Revision for final exams - Paper Two is normally held toward the end of the exam season before the half term break										

