

## Year 9 - AQA GCSE Chemistry 8462

Timing	Unit Title	Key Question	Knowledge	Assessing understanding
Autumn Term	<b>Atomic Structure</b>  <b>Chapter 1</b>	What makes an atom?	<ul style="list-style-type: none"> <li>• Atoms and isotopes</li> <li>• Arrangement of electrons in atoms</li> <li>• How theories of atomic structure have developed</li> <li>• History of the Periodic Table</li> </ul>	<p><b>How understanding is assessed</b></p> <p>Students will be assessed on their ability to:</p> <ul style="list-style-type: none"> <li>• Recall the knowledge covered</li> <li>• Explain chemical phenomena</li> <li>• Interpret graphical and experimental data</li> <li>• Plan and describe valid experiments</li> <li>• Evaluate experimental procedures and results.</li> </ul> <ul style="list-style-type: none"> <li>• Description</li> <li>• Explanation</li> <li>• Evaluation</li> <li>• Comparison</li> <li>• Planning and carrying out investigations</li> </ul> <p><b>Assessment point information</b></p> <p>Based on:</p> <ul style="list-style-type: none"> <li>• Written test on structure of the atom</li> <li>• Required Practical 6 – Chromatography</li> <li>• Teacher continuous assessment.</li> </ul>
	<b>Separation</b>  <b>Chapter 1</b>	How can mixtures of elements or compounds be separated?	<ul style="list-style-type: none"> <li>• Compound and mixtures</li> <li>• Separation techniques</li> <li>• Required Practical 6 - Chromatography</li> </ul>	
	<b>Introduction to Organic Chemistry: Alkanes</b>  <b>Chapter 9</b>	Why is society so reliant on non-renewable crude oil?	<ul style="list-style-type: none"> <li>• Nomenclature and Formulation of alkanes</li> <li>• Properties of alkanes</li> <li>• Introduction to Crude Oil</li> </ul>	

Spring Term	<b>Alkanes</b>  <b>Chapter 9</b>	Why is society so reliant on non-renewable crude oil?	<ul style="list-style-type: none"> <li>Fractional distillation of crude oil</li> <li>Properties and uses of crude oil fractions</li> <li>Combustion of hydrocarbons</li> <li>Cracking and the production of alkenes</li> </ul>	<b>How understanding is assessed</b> Students will be assessed on their ability to: <ul style="list-style-type: none"> <li>Recall the knowledge covered</li> <li>Explain chemical phenomena</li> <li>Interpret graphical and experimental data</li> <li>Plan and describe valid experiments</li> <li>Evaluate experimental procedures and results.</li> </ul> <ul style="list-style-type: none"> <li>Description</li> <li>Explanation</li> <li>Evaluation</li> <li>Comparison</li> <li>Planning and carrying out investigations</li> <li>Chemical calculations</li> </ul> <b>Assessment point information</b>  Based on: <ul style="list-style-type: none"> <li>Written test on alkanes and alkenes</li> <li>Teacher continuous assessment.</li> </ul>
	<b>Alkenes</b>  <b>Chapter 10.1 and 11.1</b>	How are plastics made?	<ul style="list-style-type: none"> <li>Reactions of alkenes</li> <li>Making polymers</li> </ul>	
	<b>Earth's atmosphere</b>  <b>Chapter 13</b>	What gases are in the atmosphere and how did they get there?	<ul style="list-style-type: none"> <li>Earth's atmosphere in the past</li> <li>Earth's present atmosphere</li> <li>Greenhouse gases</li> <li>Atmospheric pollutants</li> </ul>	

Summer Term	<b>Review and end of year exam</b>  <b>Rate of reaction</b>  <b>Chapter 8</b>	How can we apply the chemical ideas we have learned so far?  Why is it important to know how fast a reaction goes?	<ul style="list-style-type: none"><li>● Revision and exam paper practice</li> <li>● Collision theory</li><li>● Effect of concentration, temperature, pressure, surface area and catalyst on rate</li><li>● Experimental investigation of rate</li><li>● Graphical analysis of rate data</li></ul>	<b>How understanding is assessed</b>  Students will be assessed on their ability to: <ul style="list-style-type: none"><li>● Recall the knowledge covered</li><li>● Explain chemical phenomena</li><li>● Interpret graphical and experimental data</li><li>● Plan and describe valid experiments</li><li>● Evaluate experimental procedures and results.</li></ul> <ul style="list-style-type: none"><li>● Description</li><li>● Explanation</li><li>● Evaluation</li><li>● Comparison</li><li>● Planning and carrying out investigations</li></ul> <b>Assessment point information</b>  Based on: <ul style="list-style-type: none"><li>● End of year exam</li><li>● Required Practical 5 – Effect of concentration on the rate of reaction.</li></ul>
-------------	---	--	---	---