

## KS4 Year 10 Chemistry

We follow the AQA curriculum for both combined and triple science. The website with all of the information for each course can be found below. For the specifications please see the link in the table.

Combined: <https://www.aqa.org.uk/subjects/science/gcse/combined-science-trilogy-8464>

Triple: <https://www.aqa.org.uk/subjects/science/gcse/chemistry-8462>

Autumn Term		Spring Term		Summer Term	
<p><b>Key knowledge:</b> C2: Structure and bonding (3.5 weeks triple) (10 weeks combined) C3: Quantitative Chemistry (7 weeks triple) (7 weeks combined higher) (2 weeks combined foundation)</p> <p>Please refer to the specification from AQA <a href="https://filestore.aqa.org.uk/resources/science/specifications/AQA-8464-SP-2016.PDF">https://filestore.aqa.org.uk/resources/science/specifications/AQA-8464-SP-2016.PDF</a></p>	<p><b>AAFPOL 1</b> <b>C1 atomic structure</b> <b>C2 Structure and bonding</b> <b>C3 Quantitative (please see teacher for further details as timings may vary slightly)</b></p>	<p><b>Key knowledge:</b> C4: Chemical changes and electrolysis (9-11 weeks combines) (7 weeks triple) C5: Energy changes (Combined 2-3 weeks) (triple 2 weeks)</p> <p>Please refer to the specification from AQA <a href="https://filestore.aqa.org.uk/resources/science/specifications/AQA-8464-SP-2016.PDF">https://filestore.aqa.org.uk/resources/science/specifications/AQA-8464-SP-2016.PDF</a></p>	<p><b>Key Knowledge:</b> C6: Extent of chemical change (combined science 4-6 weeks) (triple 6 weeks) Exam questions and revision of paper 1.</p> <p>Please refer to the specification from AQA <a href="https://filestore.aqa.org.uk/resources/science/specifications/AQA-8464-SP-2016.PDF">https://filestore.aqa.org.uk/resources/science/specifications/AQA-8464-SP-2016.PDF</a></p>	<p><b>AAFPOL 2</b> <b>Full paper 1</b> <b>Mock</b> <b>C1-C5</b></p> <p><b>Triple: 1hr 45 mins</b> <b>Combined: 1 hr 15 mins</b></p>	
<p><b>Pupils will be able to:</b> C2: Chemists use theories of structure and bonding to explain the physical and chemical properties of Materials C3: Use quantitative methods to determine the purity of chemical samples and to monitor the yield from chemical reactions.</p>		<p><b>Pupils will be able to:</b> C4: Predict what new substance will be formed through chemical reactions and changes. C5: Understand the energy changes within a chemical reaction.</p>	<p><b>Pupils will be able to:</b> C6: Understand the ways in which chemical reactions can be manipulated in order to make them more efficient, cost effective in industry, benefiting humankind.</p>		
<p><b>Assessment:</b> 1. Structure and bonding giant ionic Vs simple covalent bonding 2. Allotropes of Carbon 3. Quantitative chem maths questions</p>		<p><b>Assessment:</b> 5. Triple only Titration 6. Making a soluble salt from an insoluble base 7. Extraction of aluminium 8. Exothermic and endothermic reactions.</p>	<p><b>Assessment:</b> 9. Design of an experiment to calculate rates of reaction. 10. Factors that affect the rate of reaction.</p>		
<p><b>Key Vocabulary:</b> Please refer to the knowledge booklets</p>		<p><b>Key Vocabulary:</b> Please refer to the knowledge booklets</p>	<p><b>Key Vocabulary:</b> Please refer to the knowledge booklets</p>		
		<p><b>Assessment Objectives (AOs):</b> AO1: Demonstrate knowledge and understanding of: scientific ideas; scientific techniques and procedures. AO2: Apply knowledge and understanding of: scientific ideas; scientific enquiry, techniques and procedures. AO3: Analyse information and ideas to: interpret and evaluate; make judgments and draw conclusions; develop and improve experimental procedures.</p>			

## Year 11 Chemistry

We follow the AQA curriculum for both combined and triple science. The website with all of the information for each course can be found below. For the specifications please see the link in the table.

Combined: <https://www.aqa.org.uk/subjects/science/gcse/combined-science-trilogy-8464>

Triple: <https://www.aqa.org.uk/subjects/science/gcse/chemistry-8462>

Autumn Term:		Spring Term:		Summer Term:
<p><b>Key knowledge:</b> C6: Extent of chemical change (combined science 4-6 weeks) (triple 6 weeks) Exam questions and revision of paper 1.</p> <p>Please refer to the specification from AQA <a href="https://filestore.aqa.org.uk/resources/science/specifications/AQA-8464-SP-2016.PDF">https://filestore.aqa.org.uk/resources/science/specifications/AQA-8464-SP-2016.PDF</a></p> <p>C7: Organic Chemistry (combined science 4 weeks) (triple 5 weeks)</p> <p>Please refer to the specification from AQA <a href="https://filestore.aqa.org.uk/resources/chemistry/specifications/AQA-8462-SP-2016.PDF">https://filestore.aqa.org.uk/resources/chemistry/specifications/AQA-8462-SP-2016.PDF</a></p> <p>C8: Chemical analysis (2 weeks)</p> <p>Please refer to the specification from AQA <a href="https://filestore.aqa.org.uk/resources/chemistry/specifications/AQA-8462-SP-2016.PDF">https://filestore.aqa.org.uk/resources/chemistry/specifications/AQA-8462-SP-2016.PDF</a></p>	<p><b>AAFPOL 1</b></p> <p><b>Full paper 1</b></p>	<p><b>Key knowledge:</b> C9: Chemistry of the atmosphere (combined and triple 3 weeks)</p> <p>Please refer to the specification from AQA <a href="https://filestore.aqa.org.uk/resources/chemistry/specifications/AQA-8462-SP-2016.PDF">https://filestore.aqa.org.uk/resources/chemistry/specifications/AQA-8462-SP-2016.PDF</a></p> <p>C10: Using resources (combined and triple 5 weeks)</p> <p>Please refer to the specification from AQA <a href="https://filestore.aqa.org.uk/resources/chemistry/specifications/AQA-8462-SP-2016.PDF">https://filestore.aqa.org.uk/resources/chemistry/specifications/AQA-8462-SP-2016.PDF</a></p> <p>Revision from past paper questions up until the EXAM</p>	<p><b>AAFP OL 2</b></p> <p><b>Full paper 2</b></p>	
<p><b>Pupils will be able to:</b> Investigate the factors that affect the rate of a chemical reaction, study about organic compounds and their reactions, investigate how to analyse chemicals.</p> <p><b>Assessment:</b> 1. Rates of reaction 2. Crude oil and fuels 2b. Triple only production of alcohols 3. Chromatography analysis 3b. Triple only test for ions</p>		<p><b>Pupils will be able to:</b> Discuss the evolution and composition of the atmosphere and discuss anthropological influences on the composition of the atmosphere. Pupils should also be able to evaluate how resources can be used.</p> <p><b>Assessment:</b> 4. Evolution of the atmosphere 5. Evaluation of a product LCA 5b. Triple only Harbor process</p>		
<p><b>Key vocabulary:</b> Please refer to the knowledge booklets</p>		<p><b>Key Vocabulary:</b> Please refer to the knowledge booklets</p>		
<p><b>Assessment Objectives (AOs):</b> AO1: Demonstrate knowledge and understanding of: scientific ideas; scientific techniques and procedures. AO2: Apply knowledge and understanding of: scientific ideas; scientific enquiry, techniques and procedures. AO3: Analyse information and ideas to: interpret and evaluate; make judgments and draw conclusions; develop and improve experimental procedures.</p>				