

Curriculum Overview – Chemistry

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 7	1. How science works, 2. Mixtures		1. Atoms and compounds, 2. Acids and alkalis		1. Energy transfer., 2. Metals and non-metals	
Year 8	1. Atomic Structure, 2. Structure and properties		1. Strong and weak acids, 2. Rates		1. Crude oil, 2. The atmosphere	
Year 9	1. Periodic table, 2. Chemical bonding		3. Bonding, Bonding 4. Reactivity		1. Chemical bonding, 2. Quantitative chemistry	
Year 10	1. Energy Changes 2. Chemical changes		1. Rates of Chemical reactions 2. Reversible reactions and equilibrium		1. Properties of Hydrocarbons 2. Earth's resources	
Year 11	1. Chemical Analysis 2. Atmosphere and using resources		1. Revision 2. Revision		1. Revision 2. Revision	
Year 12	1. Atomic Structure and bonding 2. Amount of substance and Kinetics		1. Energetics and Intro to Organic Chemistry. 2. Equilibrium, Redox, and		1. Inorganic and Alkenes, Alcohols, & Chemical analysis 2. Mock exams and Prep for year 13.	

		Alkanes & Halogenoalkanes	
Year 13	<ol style="list-style-type: none">1. Thermodynamics and Rates2. Electrochemistry and Redox	<ol style="list-style-type: none">1. Acid base Chemistry, Polymers, amines2. Further synthesis and analysis, and transition metals.	<p>exams</p> <p>exams</p>

Homework Focus

All homework in science is set on Seneca, linked with the topics taught during the term

<https://senecalearning.com/en-GB/>

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 7	1. How science works, 2. Mixtures		1. Atoms and compounds, 2. Acids and alkalis		1. Energy transfer., 2. Metals and non-metals	
Year 8	1. Atomic Structure 2. Structure and properties		1. Strong and weak acids, 2. Rates		1. Crude oil, 2. The atmosphere	
Year 9	1. Periodic table, 2. Chemical bonding		1. Bonding, 2. Bonding and reactivity		1. Chemical bonding, 2. Quantitative chemistry	
Year 10	1. Energy Changes 2. Chemical changes		1. Rates of Chemical reactions 2. Reversible reactions and equilibrium		1. Properties of Hydrocarbons 2. Earth's resources	
Year 11	1. Chemical Analysis 2. Atmosphere and using resources		Paper 1 Revision Atomic structure and the periodic table Bonding, structure, and the properties		Exams Exams	

		<p>of matter</p> <p>Quantitative chemistry</p> <p>Chemical changes</p> <p>Energy changes</p> <p>Paper 2 Revision</p> <p>The rate and extent of chemical change</p> <p>Organic chemistry</p> <p>Chemical analysis</p> <p>Chemistry of the atmosphere</p> <p>Using resources.</p>	
Year 12	<p>1.Atomic Structure and bonding</p> <p>2.Amount of substance and Kinetics</p>	<p>1.Energetics and Intro to Organic Chemistry.</p> <p>2.Equilibrium, Redox, and Alkanes & Halogenoalkanes</p>	<p>Inorganic and Alkenes, Alcohols, & Chemical analysis</p> <p>Mock exams and Prep for year 13.</p>
Year 13	<p>1.Thermodynamics and Rates</p> <p>2.Electrochemistry and Redox</p>	<p>1.Acid base Chemistry, Polymers, amines</p> <p>2.Further synthesis and analysis, and transition metals.</p>	<p>1. Exams</p> <p>2.Exams</p>

Enrichment Opportunities

	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13
Suggested Reading							
Suggested Viewing	<p>BBC Bitesize https://www.bbc.co.uk/bitesize/subjects/znxtyr/d</p> <p>Oak National Academy https://classroom.thenationalacademy/subjects-by-key-stage/key-stage-3/subjects/science</p>	<p>BBC Bitesize https://www.bbc.co.uk/bitesize/subjects/znxtyr/d</p> <p>Oak National Academy https://classroom.thenationalacademy/subjects-by-key-stage/key-stage-3/subjects/science</p>	<p>BBC Bitesize https://www.bbc.co.uk/bitesize/subjects/znxtyr/d</p> <p>BBC Bitesize https://www.bbc.co.uk/bitesize/topics/z88jjty</p> <p>Oak National Academy https://classroom.thenationalacademy/subjects-by-key-stage/key-stage-3/subjects/science</p>	<p>BBC Bitesize (Combined) https://www.bbc.co.uk/bitesize/topics/z88jjty</p> <p>BBC Bitesize (Triple) https://www.bbc.co.uk/bitesize/examspecs/z8xtmnb</p> <p>Oak National Academy https://classroom.thenationalacademy/subjects-by-year/year-</p>	<p>BBC Bitesize (Combined) https://www.bbc.co.uk/bitesize/topics/z88jjty</p> <p>BBC Bitesize (Triple) https://www.bbc.co.uk/bitesize/examspecs/z8xtmnb</p> <p>Oak National Academy https://classroom.thenationalacademy/subjects-by-year/year-</p>	<p>https://www.physicsandmathstutor.com/chemistry-revision/a-level-aqa/</p> <p>Snaprevise: https://snaprevise.co.uk/</p> <p>Periodic table of videos (Youtube)</p>	<p>https://www.physicsandmathstutor.com/chemistry-revision/a-level-aqa/</p> <p>Snaprevise: https://snaprevise.co.uk/</p> <p>Periodic table of videos (Youtube)</p>

				10/subjects/chemistry	11/subjects/chemistry		
Suggested Experiences				Science Museum The Wellcome Collection	Science Museum The Wellcome Collection	Science Museum The Wellcome Collection	Science Museum The Wellcome Collection

Links to the KS3 National Curriculum

The National Curriculum	Welling Reference to the National Curriculum
Year 7: How Science Works Mixtures Year 8: Atomic Structure Structure and properties Year 9: Periodic table Chemical bonding Year 10: Energy Changes Chemical changes Year 11: Chemical Analysis Atmosphere and using resources Year 12: Atomic Structure and bonding Amount of substance and Kinetics	Autumn Term

Year 13: Energetics and Rates Redox	
Year 7: Atoms and compounds Acids and alkalis Year 8: Strong and weak acids Rates Year 9: Bonding Bonding and reactivity Year 10: Rates of Chemical reactions Reversible reactions and equilibrium Year 11: Paper 1 Revision Atomic Structure and the Periodic Table Bonding Structure and the Properties of Matter Quantitative Chemistry Chemical Changes Energy Changes	Spring Term

<p>Paper 2 Revision The rate and extent of chemical change Organic chemistry Chemical analysis Chemistry of the atmosphere Using resources.</p> <p>Year 12: Energetics Organic Chemistry. Equilibrium, Redox</p> <p>Year 13: Acid base Chemistry, Polymers, amines analysis, and transition metals.</p>	
<p>Year 7: Energy transfer Metals and non-metals</p> <p>Year 8: Crude oil The atmosphere</p> <p>Year 9: Chemical bonding Quantitative chemistry</p> <p>Year 10: Properties of Hydrocarbons</p>	<p>Summer Term</p>



Earth's resources

Year 11:
Exams

Year 12:
Inorganic, Organic, & Chemical analysis

Year 13 Exams

Links to the Exam Specification

The Exam Specification	Welling Reference to the Exam Specification
KS4 GCSE AQA KS5: A level AQA	Autumn Term
KS4 GCSE AQA KS5: A level AQA	Spring Term
KS4 GCSE AQA KS5: A level AQA	Summer Term