

Chemistry Combined Science Route

(C) Big ideas	Year 7	Year 8	Year 9	Year 10	Year 11
Materials and their properties	C7.1 Solids, liquids and gases (10 hours) 7Ga, 7Gb, 7Gc, 7Gd, 7Ge, 7Eb	C8.1 Atoms, elements and compounds (6 hours) 7Hb, 8Fa, 7Ha, 7Hc, 7Hd, 8Fb	C9.1 States of matter and mixtures (10 hours) 7Ee, 7Ed, 7Ga, 7Gb, 7Gc GCSE topic 2 (2.1 – 2.12) (paper 1)	C10.2 Groups in the Periodic Table (4 hours) GCSE topic 6 (6.1-6.16) (paper 2)	C10.10 Calculations involving masses (6 hours) GCSE topic 1 (1.43-1.53) (paper 1 and 2)
	C7.2 Mixtures and separations (6 hours) 7Ea, 7Eb, 7Ec, 7Eb		C9.2 Atomic structure (4 hours) 8Fa GCSE topic 1 (1.1-1.12, 1.19) (paper 1 and 2)		
			C9.4 The Periodic Table (2 hours) 8Fc, 8Fd, 8Fe GCSE topic 1 (1.13-1.20) (paper 1 and 2)	C9.8 Bonding (8 hours) 9Ha GCSE topic 1 (1.21-1.42) (paper 1 and 2)	
Chemical changes	C7.3 Acids and Alkalis (10 hours) 7Fa, 7Fb, 7Fc, 7Fd, 7Fe	C8.2 Types of chemical reaction (10 hours) 7He, 8Eb, 8Ec, 7Fd, 7Fe	C9.5 Acids and bases (8 hours) 7Fb, 7Fc, 7Fd, 7Fe GCSE topic 3 (3.1-3.14) (Paper 1)	C10.1 Formulae, equations and hazards (2 hours) GCSE topic 0 (0.1-0.6) (paper 1 and 2)	C10.8 Electrolytic processes (6 hours) GCSE topic 3 (3.22-3.31) (paper 1)
			C9.3 Formulae and symbol equations (2 hours) 9Hd GCSE topic 0 (0.1-0.3) (paper 1 and 2)	C10.3 Reactions of acids (8 hours) GCSE topic 3 (3.1-3.21) (paper 1)	C10.9 Reversible reactions (2 hours) GCSE topic 4 (4.13-4.17) (paper 1)
				C10.5 Rates of reaction (6 hours) 9Hc GCSE topic 7 (7.1-7.8) (paper 2)	C10.7 Fuels (4 hours) 9Hc, GCSE topic 8 (8.1- 8.17) (paper 2)
			C10.4 Heat energy changes (4 hours) GCSE topic 7 (7.9- 7.16) (paper 2)		

Our earth and its atmosphere	C7.4 The Earth's Atmosphere (4 hours) 7Ha, 7Ec	C8.3 Metals and their uses (8 hours) 8He, 8Ga, 8Gb, 8Ge, 8Gd	C9.6 The atmosphere and climate (4 hours) 7Ha, 7Hc, 8Ee	C10.6 Obtaining and using metals (10 hours) 9Fb, 9Fe, 9Fd, 9Ee, GCSE topic 4 (4.1- 4.12) 5.1C-5.7C) (paper 1)	C11.7 Earth and atmospheric science (6 hours) GCSE topic 8 (8.18- 8.26) (paper 2)
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Chemistry Separate Science Route

(SC) Big ideas	Year 7	Year 8	Year 9	Year 10	Year 11
Materials and their properties	C7.1 Solids, liquids and gases (10 hours) 7Ga, 7Gb, 7Gc, 7Gd, 7Ge, 7Eb C7.2 Mixtures and separations (6 hours) 7Ea, 7Eb, 7Ec, 7Eb	C8.1 Atoms, elements and compounds (6 hours) 7Hb, 8Fa, 7Ha, 7Hc, 7Hd, 8Fb	C9.1 States of matter and mixtures (10 hours) 7Ee, 7Ed , 7Ga, 7Gb, 7Gc GCSE topic 2 (2.1 – 2.12) (paper 1)	C10.2 Groups in the Periodic Table (4 hours) GCSE topic 6 (6.1-6.16) (paper 2)	C11.3 Quantitative analysis (10 hours) GCSE topic 5 (5.8C- 5.18C) (paper 1) C11.5 Nanoparticles (2 hours) GCSE topic 9 (9.35C – 9.39C) (paper 2)
			C9.2 Atomic structure (4 hours) 8Fa GCSE topic 1 (1.1-1.12, 1.19) (paper 1 and 2)	C10.10 Calculations involving masses (6 hours) GCSE topic 1 (1.43-1.53) (paper 1 and 2)	
			C9.4 The Periodic Table (2 hours) 8Fc, 8Fd, 8Fe GCSE topic 1 (1.13-1.20) (paper 1 and 2)		
			C9.8 Bonding (8 hours) 9Ha GCSE topic 1 (1.21-1.42) (paper 1 and 2)		
Chemical changes	C7.3 Acids and Alkalis (10 hours) 7Fa, 7Fb, 7Fc, 7Fd, 7Fe	C8.2 Types of chemical reaction (10 hours) 7He, 8Eb, 8Ec, 7Fd, 7Fe	C9.5 Acids and bases (8 hours) 7Fb, 7Fc, 7Fd, 7Fe GCSE topic 3 (3.1-3.14) (Paper 1)	C10.1 Formulae, equations and hazards (2 hours) GCSE topic 0 (0.1-0.6) (paper 1 and 2)	C11.6 Equilibria (6 hours) GCSE topic 5 (5.19C- 5.24C) (paper 1)
			C9.3 Formulae and symbol equations (2 hours) 9Hd GCSE topic 0 (0.1-0.3) (paper 1 and 2)	C10.3 Reactions of acids (8 hours) GCSE topic 3 (3.1-3.21) (paper 1)	C11.4 Cells (2 hours) GCSE topic 5 (5.25C-5.27C) (paper 1)
				C10.8 Electrolytic processes (6 hours) GCSE topic 3 (3.22-3.31) (paper 1)	C11.2 Organic Chemistry (8 hours) GCSE topic 9 (9.10C- 9.34C) (paper 2) C11.1 Tests for ions (4 hours) GCSE topic 9 (9.1C- 9.9C) (paper 2)
				C10.9 Reversible reactions (2 hours) GCSE topic 4 (4.13-4.17) (paper 1)	
				C10.5 Rates of reaction (6 hours) 9Hc GCSE topic 7 (7.1-7.8) (paper 2)	
				C10.4 Heat energy changes (4 hours) GCSE topic 7 (7.9- 7.16) (paper 2)	
				C10.7 Fuels (4 hours) 9Hc,	

<p>Our earth and its atmosphere</p>	<p>C7.4 The Earth's Atmosphere (4 hours) 7Ha, 7Ec</p>	<p>C8.3 Metals and their uses (8 hours) 8He, 8Ga, 8Gb, 8Ge, 8Gd</p>	<p>C9.6 The atmosphere and climate (4 hours) 7Ha, 7Hc, 8Ee</p> <hr/> <p>C9.7 Ceramics, polymers and composites (2 hours) 9Ea, 9Eb, 9Ec GCSE topic 9 (9.39C, 9.38C) (paper 2)</p>	<p>GCSE topic 8 (8.1- 8.17) (paper 2)</p> <p>C10.6 Obtaining and using metals (including transition metals) (10 hours) 9Fb, 9Fe, 9Fd, 9Ee, GCSE topic 4 (4.1- 4.12) 5.1C-5.7C) (paper 1)</p>	<p>C11.7 Earth and atmospheric science (6 hours) GCSE topic 8 (8.18- 8.26) (paper 2)</p>
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