

## Edexcel GCE A level Chemistry

The table shows the contents of each Group of lessons, mapped to the specification. Some lessons may appear in more than one Group.

**Note that some aspects of Topics – mostly applications – have been removed from Lesson plans for brevity, but could be restored by Lesson authors if time permits.**

**There is potential overlap in Lesson C.4 and Lesson E.3 in terms of where optical activity / SN1 and SN2 are considered.**

Lesson Group	Specification coverage	Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5	Pre-Test	Post-Test
<b>A: Fundamental principles of chemistry</b>	Topic 1 Topic 2 Topic 5	Atomic Structure (1.1 – 1.7, 1.11 – 1.21)	Ionic and covalent bonding (2.1 – 2.9, 2.13 – 2.15)	Intermolecular forces (2.16 – 2.21)	Shapes and structures (2.10 – 2.12, 2.22 – 2.27)	Chemical equations and quantitative chemistry (5.1-5.11)	<b>A</b>	<b>A</b>
<b>B: Chemical energy</b>	Topic 8 Topic 13	Enthalpy changes (8.1 – 8.4, 8.9 – 8.11)	Hess's Law / enthalpy practicals (8.5 – 8.8)	Lattice energy and Born Haber cycles (13.1 – 13.11)	Entropy (13.12 – 13.17)	Gibbs free energy (3.18 – 3.22)	<b>B</b>	<b>B</b>
<b>C: Reaction kinetics</b>	Topic 9 Topic 16	Collision theory and measuring reaction rates (9.1 – 9.3)	Maxwell-Boltzmann and catalysts (9.4 – 9.9)	Orders of reaction (16.1 – 16.2, 16.5-16.7)	Rates and mechanisms (16.8 – 16.11)	Obtaining rate data and rate equation (16.3 – 16.4, 16.12)	<b>C</b>	<b>C</b>
<b>D: Equilibrium reactions</b>	Topic 10 Topic 11 Topic 12	Factors influencing position of equilibrium (10.1 – 10.3)	Kc and Kp (10.4, 11.1 – 11.5)	Acids and pH (12.1 – 12.8)	Ka and Kw (12.9 – 12.15)	Buffers and titration curves (12.16 – 12.22)	<b>D</b>	<b>D</b>
<b>E: Organic chemistry</b>	Topic 6 Topic 17 Topic 18	Alkanes and alkenes (6.1 – 6.9, 6.15 - 6.25)	Haloalkanes and alcohols (6.30 – 6.38)	Chirality, carbonyls and carboxylic acids (17.1 – 17.15)	Aromatic Compounds (18.1 – 18.7)	Organic nitrogen compounds & synthetic	<b>E</b>	<b>E</b>

Lesson Group	Specification coverage	Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5	Pre-Test	Post-Test
						pathways (18.8 – 18.20)		
<b>F: Periodic Table and redox</b>	Topic 3 Topic 4 Topic 14 Topic 15	Redox and balancing equations (3.1 – 3.13, 14.18)	Groups 1, 2 and 7 (4.1 – 4.14)	Principles of transition metal chemistry (15.1 – 15.14)	Reactions of transition metals (15.15 – 15.30)	Redox potentials (14.3 – 14.12)	<b>F</b>	<b>F</b>
<b>G: Instrumental and Core Practical techniques</b>	Topic 1 Topic 7 Topic 19	Mass spectrometry (1.8 – 1.10, 7.1, 19.1)	NMR (19.2 – 19.5)	IR and chromatography (7.2, 19.6 – 19.8)	Core Practical Techniques (CP1-17) <b>Chosen by school</b>	Organic techniques (6.39, 18.21 – 18.22)	<b>G</b>	<b>G</b>