

Switching to OCR A from Pearson (Edexcel)

The content within the [OCR Chemistry A specification](#) covers the key concepts of chemistry and will be very familiar. We've laid it out in a logical progression to support co-teaching the AS Level and teaching the A Level in a linear way.

| OCR Chemistry A (H032/H432) | Pearson (Edexcel) (8CH0/9CH0) <i>(* – topic is split)</i> |
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| <p>Module 1: Development of practical skills in chemistry</p> <p>Practical skills assessed in a written examination and Practical skills assessed in the practical endorsement</p> | <p>The same practical skills, as mandated by the DfE, are listed in Appendix 5 of the Edexcel specification</p> |
| <p>Module 2 – Foundations in chemistry</p> <p>Atoms, compounds, molecules and equations</p> <p>Amount of substance</p> <p>Acid–base and redox reactions</p> <p>Electrons, bonding and structure</p> | <p>Topic 1: Atomic Structure & Periodic Table*</p> <p>Topic 2A: Bonding</p> <p>Topic 2B: Structure*</p> <p>Topic 3: Redox I</p> <p>Topic 5: Formulae, Equations and Amounts of Substance</p> <p>Topic 12: Acid-Base Equilibria*</p> |
| <p>Module 3 – Periodic table and energy</p> <p>The periodic table and periodicity</p> <p>Group 2 and the halogens</p> <p>Qualitative analysis</p> <p>Enthalpy changes</p> <p>Reaction rates and equilibrium (qualitative)</p> | <p>Topic 1: Atomic Structure & Periodic Table*</p> <p>Topic 2B: Structure*</p> <p>Topic 4A: The elements of Groups 1 & 2</p> <p>Topic 4B: The elements of Group 7</p> <p>Topic 4C: Analysis of inorganic compounds</p> <p>Topic 8: Energetics I</p> <p>Topic 9: Kinetics I</p> <p>Topic 10: Equilibrium I</p> |



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|---|---|
| Module 4 – Core organic chemistry Basic concepts Hydrocarbons Alcohols and haloalkanes Organic synthesis Analytical techniques (IR and MS) | Topic 6A: Introduction to organic chemistry Topic 6B: Alkanes Topic 6C: Alkenes Topic 6E: Alcohols Topic 6D: Halogenoalkanes Topic 7A: Mass spectrometry Topic 7B: Infrared (IR) spectroscopy Topic 18C: Organic Synthesis* |
| Module 5 – Physical chemistry and transition elements Reaction rates and equilibrium (quantitative) pH and buffers Enthalpy, entropy and free energy Redox and electrode potential Transition elements | Topic 16: Kinetics II Topic 11: Equilibrium II Topic 12: Acid-Base Equilibria* Topic 13A: Lattice energy Topic 13B: Entropy Topic 14: Redox II Topic 15A: Principles of transition metal chemistry Topic 15B: Reactions of transition metal elements |
| Module 6: Organic chemistry and analysis Aromatic compounds Carbonyl compounds Carboxylic acids and esters Nitrogen compounds Polymers Organic synthesis Chromatography and spectroscopy (NMR) | Topic 17A: Chirality Topic 17B: Carbonyl compounds Topic 17C: Carboxylic acids Topic 18A: Arenes - benzene Topic 18B: Amines, amides, amino acids and proteins Topic 18C: Organic Synthesis* Topic 19B: Nuclear magnetic resonance Topic 19C: Chromatography |
| Appendix 5e: Mathematical requirements Arithmetic and numerical computation Handling data Algebra Graphs Geometry and trigonometry | Appendix 6: Mathematical skills and exemplifications Arithmetic and numerical computation Handling data Algebra Graphs Geometry and trigonometry |

Note: one Edexcel specification topic (19A Mass Spectrometry) does not appear in the OCR A specification.



Assessment – AS Level

| OCR Chemistry A (H032) | Pearson (Edexcel) (8CH0) |
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| <p>AS Paper 1: Breadth in chemistry Modules 1–4</p> <p>70 marks, 50% of AS Level</p> <p>Written paper – 1 hour 30 minutes</p> <p>Section A multiple choice questions, 20 marks. Section B short answer question styles (structured questions, problem solving, calculations, practical) and extended response questions, 50 marks.</p> | <p>AS Paper 1: Core Inorganic and Physical Chemistry, Topics 1–5 & practical skills</p> <p>80 marks , 50% of AS Level</p> <p>Written paper – 1 hour 30 minutes</p> <p>The paper may include multiple-choice, short open, open-response, calculations and extended writing questions.</p> |
| <p>AS Paper 2: Depth in chemistry Modules 1–4</p> <p>70 marks, 50% of AS Level</p> <p>Written paper – 1 hour 30 minutes</p> <p>Question styles include short answer (structured questions, problem solving, calculations, practical) and extended response questions, including those marked using Level of Response mark schemes.</p> | <p>AS Paper 2: Core Organic and Physical Chemistry: Topics 2, 5–10 & practical skills</p> <p>80 marks, 50% of AS Level</p> <p>Written paper – 1 hour 30 minutes</p> <p>The paper may include multiple-choice, short open, open-response, calculations and extended writing questions.</p> |



Assessment – A Level

| OCR Chemistry A (H432) | Pearson (Edexcel) (9CH0) |
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| <p>A Level Paper 1: Periodic table, elements and physical chemistry Modules 1, 2, 3 & 5 100 marks, 37% of A Level Written paper – 2 hours 15 minutes</p> <p>Section A multiple choice questions, 15 marks. Section B short answer question styles (structured questions, problem solving, calculations, practical) and extended response questions, 85 marks.</p> | <p>A Level Paper 1: Advanced Inorganic and Physical Chemistry: Topics 1–5, 8, 10–15 90 marks, 30% of A Level Written paper – 1 hour 45 minutes</p> <p>The paper may include multiple-choice, short open, open-response, calculations and extended writing questions.</p> |
| <p>A Level Paper 2: Synthesis and analytical techniques, Modules 1, 2, 4 & 6 100 marks, 37% of A Level Written paper – 2 hours 15 minutes</p> <p>Section A multiple choice questions, 15 marks. Section B includes short answer question styles (structured questions, problem solving, calculations, practical) and extended response questions, 85 marks.</p> | <p>A Level Paper 2: Advanced Organic and Physical Chemistry, Topics 2, 3, 5–7, 9, 16–19 90 marks, 30% of A Level Written paper – 1 hour 45 minutes</p> <p>The paper may include multiple-choice, short open, open-response, calculations and extended writing questions.</p> |
| <p>A Level Paper 3: Unified chemistry Modules 1–6 70 marks, 26% of A Level Written paper – 1 hour 30 minutes</p> <p>Question styles include short answer (structured questions, problem solving, calculations, practical) and extended response questions.</p> | <p>A Level Paper 3: General and Practical Principles in Chemistry: All topics & practical skills 120 marks, 40% of A Level Written paper – 2 hours 30 minutes</p> <p>The paper may include short open, open-response, calculations and extended writing questions.</p> |



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| <p>Practical Endorsement in chemistry</p> <p>Separately reported non-exam assessment, with candidates demonstrating competence in a range of skills and techniques, in a minimum of 12 assessed practical activities. Teacher assessment against the Common Practical Assessment Criteria.</p> | <p>Practical Endorsement in chemistry</p> <p>Separately reported non-exam assessment, with candidates demonstrating competence in a range of skills and techniques, in a minimum of 12 assessed practical activities. Teacher assessment against the Common Practical Assessment Criteria.</p> |

