

National curriculum or specification coverage

- 4.6.1 Rates of reaction: calculating rates, factors affecting rates and catalysts
- 4.6.2 Reversible reactions and dynamic equilibrium
- 4.6.3 Le Chatelier's principle (HT only)
- 4.7.1 Carbon compounds as fuels and feedstock: crude oil, alkanes, distillation, properties, cracking and alkenes
- 4.8.1 Purity, formulations and chromatography (required practical 6)
- 4.8.2 Identification of common gases
- 4.9.1 The proportions and evolution of the atmosphere
- 4.9.2 Carbon dioxide, methane and climate change
- 4.9.3 Common atmospheric pollutants and their sources
- 4.10.1 Using the Earth's resources and obtaining potable water (required practical 7)
- 4.10.2 Life-cycle assessment and recycling

Specification: AQA GCSE Combined Science: Trilogy (8464), Chemistry. Higher Tier content is explicitly labelled.

Date	Exams/ Assessments	Learning Intentions	Core Task/Assessments
01/09/26	INSET (MON, TUE)	INSET (MON, TUE)	
07/09/26		• C6.8 Reversible Reactions - PRAC — Reversible reactions: recognise the reversible reaction symbol; describe how products can react to reform reactants, including hydrated and anhydrous copper sulfate. Practical: investigate reversible hydration/dehydration, with safe heating and observations. [AQA 4.6.2.1] • C6.9 Dynamic Equilibrium — Dynamic equilibrium: explain that in a closed system forward and reverse reactions continue at equal rates at equilibrium, with constant concentrations. [AQA 4.6.2.2–4.6.2.3]	
14/09/26		• C6.10 Factors Effecting Equilibrium- Conc reactants and Products — Factors affecting equilibrium: use Le Chatelier's principle (HT) to predict the effect of changing reactant or product concentration on the equilibrium position. [AQA 4.6.2.3; 4.6.3.1 (HT)]	
21/09/26		• C6.11 Factors Effecting Equilibrium - Temp Pressure — Factors affecting equilibrium: predict how temperature changes the position of equilibrium, using exothermic and endothermic directions; explain pressure effects for gaseous equilibria (HT). [AQA 4.6.2.2; 4.6.3.1 (HT)] • C6.12 Standard Task - Rates and Equilibrium — Rates and equilibrium standard task: assess interpreting rate graphs, collision theory, catalysts, reversible reactions and equilibrium; include HT equilibrium predictions where appropriate. [AQA 4.6.1–4.6.3]	C6.12 Standard Task - Rates and Equilibrium
28/09/26		• C6.13 Feedback - Rates and Equilibrium — Rates and equilibrium feedback: respond to assessment misconceptions, correct graph interpretation and explain equilibrium changes with evidence. [AQA 4.6.1–4.6.3]	C6.13 Feedback - Rates and Equilibrium

Year 11 Long Term Scheme of Learning 2026-2027

Subject: Chemistry (Combined Science)

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05/10/26		• C7.1 Hydrocarbons — Hydrocarbons: define crude oil as a mixture of hydrocarbons; identify alkanes as saturated hydrocarbons, recall the general formula C_nH_{2n+2} and recognise displayed/structural formulae for the first four alkanes. [AQA 4.7.1.1] • C7.2 Fractional Distillation — Fractional distillation: explain separation of crude oil into fractions by boiling-point differences; relate chain length to boiling point, viscosity and flammability; identify major uses of fractions. [AQA 4.7.1.2–4.7.1.3]	
12/10/26		• C7.3 Combustion — Combustion: write balanced equations for complete combustion of hydrocarbons; explain products of incomplete combustion and the hazards of carbon monoxide and particulates. [AQA 4.7.1.3; 4.9.3.1]	
19/10/26	Assessment?	• PPE 1: assess Chemistry Paper 1 knowledge and exam technique (atomic structure, bonding, quantitative chemistry, chemical changes and energy changes).	PPE 1 Assessment - Paper 1 Exam
02/11/26	INSET (MON) - Assessment?	• PPE 1: assess Chemistry Paper 1 knowledge and exam technique (atomic structure, bonding, quantitative chemistry, chemical changes and energy changes).	PPE 1 Assessment - Paper 1 Exam
09/11/26		• PPE 1 Assessment - FEEDBACK: review scripts, identify gaps, redraft extended answers and target exam-technique misconceptions. • C7.4 Cracking and Alkenes — Cracking and alkenes: explain why long-chain hydrocarbons are cracked, describe catalytic and steam cracking; identify alkenes as unsaturated, use bromine water to distinguish alkenes from alkanes. [AQA 4.7.1.4]	PPE 1 Assessment - FEEDBACK
16/11/26		• C8.1 Pure Substances, Mixtures and Formulations - Link to C1 — Pure substances, mixtures and formulations: distinguish a pure substance from a mixture using melting/boiling points; explain how formulations combine substances in measured proportions for a purpose. [AQA 4.8.1.1–4.8.1.2]	
23/11/26		• C8.2 Chromatography — Chromatography: describe separation of mixtures by different solubilities and attraction to stationary/mobile phases; interpret chromatograms and calculate R_f values. [AQA 4.8.1.3] • C8.3 Required Practical - Chromatography — Required practical – chromatography: use paper chromatography to separate coloured mixtures; identify components using reference samples and calculate R_f; control solvent level, pencil baseline and solvent-front measurement. [AQA 4.8.1.3; required practical 6]	
30/11/26		• C8.4 Testing for Gases — Testing for gases: recall and explain the tests for hydrogen (squeaky pop), oxygen (relights glowing splint), carbon dioxide (limewater turns cloudy) and chlorine (bleaches damp litmus paper). [AQA 4.8.2.1]	
07/12/26		• C8.5 Standard Task -Organic Chemistry and Chemical Analysis — Organic chemistry and chemical analysis standard task: assess hydrocarbon properties, distillation, cracking, formulations, chromatography/R_f and gas tests. [AQA 4.7.1; 4.8.1–4.8.2] • C8.6 -Organic Chemistry and Chemical Analysis — Organic chemistry and chemical analysis feedback: correct misconceptions from the standard task; practise interpreting chromatograms, equations and required-practical method questions. [AQA 4.7.1; 4.8.1–4.8.2]	C8.5 Standard Task -Organic Chemistry and Chemical Analysis
14/12/26		• C9.1 History of Our Atmosphere — History of our atmosphere: describe the early atmosphere and volcanic activity; compare suggested compositions with today's atmosphere and explain uncertainty about early conditions. [AQA 4.9.1.1–4.9.1.2]	
04/01/27		• C9.2 Evolution of the Atmosphere — Evolution of the atmosphere: explain how oceans, photosynthesis, carbon sinks and the formation of sedimentary rocks changed levels of carbon dioxide and oxygen over geological time. [AQA 4.9.1.2–4.9.1.3] • C9.3 Greenhouse Gases — Greenhouse gases: identify water vapour, carbon dioxide and methane; describe the greenhouse effect and evaluate evidence about human activities increasing greenhouse gas concentrations. [AQA 4.9.2.1–4.9.2.2]	
11/01/27		• C9.4 Climate Change — Climate change: describe potential consequences of global climate change; distinguish evidence from uncertainty and evaluate proposed ways to reduce emissions and mitigate impacts. [AQA 4.9.2.2–4.9.2.3]	
18/01/27		• C9.5 Atmospheric Pollutants — Atmospheric pollutants: explain how carbon monoxide, sulfur dioxide, oxides of nitrogen and particulates form from fuel combustion and describe their environmental and health effects. [AQA 4.9.3.1–4.9.3.2]	C9.6 Standard Task - The Atmosphere

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		• C9.6 Standard Task - The Atmosphere — Atmosphere standard task: assess atmospheric evolution, greenhouse gases, climate change evidence and pollutants, including interpretation of scientific data. [AQA 4.9.1–4.9.3]	
25/01/27		• C9.7 Feedback - The Atmosphere — Atmosphere feedback: use assessment responses to revisit atmospheric evolution, evidence and data interpretation, and distinguish greenhouse gases from other pollutants. [AQA 4.9.1–4.9.3]	C9.7 Feedback - The Atmosphere
01/02/27	Y11 In-Class PPE's	• C10.1 Finite and Renewable Resources — Finite and renewable resources: distinguish finite from renewable resources; explain sustainable development and the environmental, economic and social implications of resource use. [AQA 4.10.1.1] • PPE2 Revision: revisit required practical methods, variables, risk assessment, data processing and exam-style questions, including chromatography and water purification.	PPE2 Revision
08/02/27	Y11 EBAC PPE's in HALL	• PPE 2: assess rates and equilibrium, organic chemistry, chemical analysis and chemistry of the atmosphere (C6–C9).	PPE 2 Assessment - C6-C9 Paper
22/02/27		• PPE 2 Assessment - Feedback: review scripts, identify gaps, redraft extended answers and target exam-technique misconceptions. • C10.2 Water Safe to Drink — Water safe to drink: distinguish potable from pure water; describe filtration, sterilisation and desalination, and compare the energy demands of water-treatment methods. [AQA 4.10.1.2]	PPE 2 Assessment - Feedback
01/03/27		• C10.3 Required Practical Purification of Water — Required practical – water purification: analyse and purify water samples by measuring pH, testing for dissolved solids and distillation; explain why distillation can produce pure water but uses energy. [AQA 4.10.1.2; required practical 7]	
08/03/27		• C10.4 Treating Waste Water — Treating waste water: describe screening, sedimentation, aerobic treatment of effluent and anaerobic digestion of sludge; compare treatment of waste, ground and salt water. [AQA 4.10.1.3] • C10.5 Extracting Metals from Ores — Extracting metals from ores: describe reduction by carbon and alternative methods including phytomining and bioleaching; discuss environmental impacts and resource sustainability. [AQA 4.10.1.4; links to 4.4.1.3]	
15/03/27		• C10.6 Life Cycle Assessments — Life-cycle assessments: identify stages from raw materials and manufacture to use, disposal and recycling; interpret data and recognise limitations and subjective judgments in LCAs. [AQA 4.10.2.1]	C10.6 Life Cycle Assessments
22/03/27		• C10.7 Reduce Reuse Recycle — Reduce, reuse, recycle: explain how reducing use, reusing products and recycling materials conserve finite resources and reduce environmental impacts; compare benefits and costs. [AQA 4.10.2.2]	
12/04/27		• Required Practical Revision: revisit required practical methods, variables, risk assessment, data processing and exam-style questions, including chromatography and water purification. • Required Practical Revision: revisit required practical methods, variables, risk assessment, data processing and exam-style questions, including chromatography and water purification.	Required Practical Revision Required Practical Revision
19/04/27		• Required Practical Revision: revisit required practical methods, variables, risk assessment, data processing and exam-style questions, including chromatography and water purification.	Required Practical Revision
26/04/27		• Exam season begins...	
03/05/27	Exam period / timetable-dependent teaching or study leave	Exam period / timetable-dependent teaching or study leave	
10/05/27	Exam period / timetable-dependent teaching or study leave	Exam period / timetable-dependent teaching or study leave	

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18/05/27	Exam period / timetable-dependent teaching or study leave	Exam period / timetable-dependent teaching or study leave	
24/05/27	Exam period / timetable-dependent teaching or study leave	Exam period / timetable-dependent teaching or study leave	
07/06/27		• Y11 Study Leave.	
14/06/27	Exam period / timetable-dependent teaching or study leave	Exam period / timetable-dependent teaching or study leave	
21/06/27	Exam period / timetable-dependent teaching or study leave	Exam period / timetable-dependent teaching or study leave	
28/06/27	Exam period / timetable-dependent teaching or study leave	Exam period / timetable-dependent teaching or study leave	
05/07/27	Exam period / timetable-dependent teaching or study leave	Exam period / timetable-dependent teaching or study leave	
12/07/27	Exam period / timetable-dependent teaching or study leave	Exam period / timetable-dependent teaching or study leave	