

Year 11 Long Term Scheme of Learning 2026-2027

Subject: Chemistry

National curriculum or specification coverage

- AQA GCSE Chemistry (8462), separate science; Year 11 teaching plan for 2026–27.
- 4.8 Chemical analysis: purity, formulations, chromatography, gas tests and chemistry-only identification of ions and instrumental methods.
- 4.9 Chemistry of the atmosphere: composition and evolution, greenhouse gases, climate change, carbon footprints and atmospheric pollutants.
- 4.10 Using resources: finite/renewable resources, potable water and waste water, metal extraction (HT), life-cycle assessments and recycling; chemistry-only corrosion, alloys, materials, Haber process and fertilisers.
- Year 11 required practicals: RP6 chromatography; RP7 identification of ions (chemistry only); RP8 water purification. Revision also revisits RP1–RP5, including chemistry-only RP2 titration.
- Assessment and revision weeks follow the supplied spreadsheet; no lessons have been invented for empty weeks.

Date	Exams/ Assessments	Learning Intentions	Core Task/Assessments
01/09/26	INSET (MON, TUE)	INSET (MON, TUE)	
07/09/26		• C8.1 Pure Substances, Mixtures and Formulations — Distinguish pure elements/compounds from mixtures; use melting and boiling points to assess purity; describe formulations as mixtures designed for particular uses. [AQA 4.8.1.1–4.8.1.2] • C8.2 Chromatography — Explain chromatography using mobile and stationary phases; interpret chromatograms and calculate $R_f = \text{distance travelled by substance} \div \text{distance travelled by solvent}$. [AQA 4.8.1.3] • C8.3 Required Practical - Chromatography — Required practical 6: separate coloured mixtures using paper chromatography; mark pencil baseline, keep spots above solvent, measure distances and calculate R_f values. [AQA 4.8.1.3; RP6]	
14/09/26		• C8.4 Testing for Gases — Recall gas tests: hydrogen gives a squeaky pop with a lighted splint; oxygen relights a glowing splint; carbon dioxide turns limewater cloudy; chlorine bleaches damp litmus. [AQA 4.8.2.1–4.8.2.4] • C8.5 Testing for Positive Ions- Flame Tests — Chemistry only: perform flame tests for Li^+ (crimson), Na^+ (yellow), K^+ (lilac), Ca^{2+} (orange-red) and Cu^{2+} (green); recognise masking in mixtures and identify metal ions using sodium hydroxide precipitates. [AQA 4.8.3.1–4.8.3.2]	
21/09/26		• C8.6 Testing for Negative Ions — Chemistry only: identify carbonate ions by acid and limewater; halide ions with dilute nitric acid and silver nitrate (white/cream/yellow precipitates); sulfate ions using acidified barium chloride (white precipitate). [AQA 4.8.3.3–4.8.3.5] • C8.7 Required Practical - Ion Tests — Required practical 7 (chemistry only): use flame tests and precipitation tests to identify cations and anions in unknown single ionic compounds; record observations and justify conclusions. [AQA 4.8.3.1–4.8.3.5; RP7] • C8.7 Instrumental Methods — Chemistry only: explain advantages of instrumental analysis (sensitivity, speed, accuracy) and use flame-emission spectra to identify and estimate concentrations of metal ions. [AQA 4.8.3.6]	
28/09/26		• C8.8 Chemical Analysis Standard Task — Chemical analysis standard task: assess purity, chromatography and R_f, gas tests, ion tests and flame-emission spectroscopy. [AQA 4.8.1–4.8.3] • C8.9 Chemical Analysis Feedback — Review chemical-analysis assessment, correct identification errors and improve interpretation of chromatograms and practical observations. [AQA 4.8.1–4.8.3]	C8.8 Chemical Analysis Standard Task C8.9 Chemical Analysis Feedback

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05/10/26		• C9.1 History of Our Atmosphere — Describe Earth's early atmosphere, volcanic activity and evidence/uncertainty in reconstructing atmospheric composition. [AQA 4.9.1.1] • C9.2 Evolution of Our Atmosphere — Explain atmospheric evolution: cooling and ocean formation, carbon dioxide removal, photosynthesis increasing oxygen and formation of sedimentary rocks/fossil fuels. [AQA 4.9.1.2–4.9.1.3] • C9.3 Greenhouse Gases — Explain the greenhouse effect and roles of carbon dioxide, methane and water vapour in absorption and re-emission of infrared radiation. [AQA 4.9.2.1]	
12/10/26		• Revision — targeted retrieval and exam-question practice for previously taught Chemistry (8462) content. • Revision — targeted retrieval and exam-question practice for previously taught Chemistry (8462) content.	Revision Revision
19/10/26	Assessment?	• PPE 1 Assessment - Paper 1 Exam — assess AQA GCSE Chemistry Paper 1 topics 4.1–4.5 (atomic structure, bonding, quantitative chemistry, chemical changes and energy changes).	PPE 1 Assessment - Paper 1 Exam
02/11/26	INSET (MON) - Assessment?	• PPE 1 Assessment - Paper 1 Exam — assess AQA GCSE Chemistry Paper 1 topics 4.1–4.5 (atomic structure, bonding, quantitative chemistry, chemical changes and energy changes).	PPE 1 Assessment - Paper 1 Exam
09/11/26		• PPE 1 Assessment - FEEDBACK — analyse examination performance and reteach identified misconceptions using exam-style questions. • C9.4 Human Activities — Explain how human activities, including fossil-fuel combustion, agriculture and deforestation, increase greenhouse gases; interpret evidence and uncertainties. [AQA 4.9.2.2] • C9.5 Climate Change and Carbon Footprint — Describe potential climate-change impacts and evaluate ways to reduce carbon footprints, including limitations and trade-offs. [AQA 4.9.2.3–4.9.2.4]	PPE 1 Assessment - FEEDBACK
16/11/26		• C9.6 Atmospheric Pollutants — Identify carbon monoxide, sulfur dioxide, oxides of nitrogen and particulates from fuel combustion; explain environmental and health effects and causes of incomplete combustion. [AQA 4.9.3.1–4.9.3.2] • C9.7 Standard Task - The Atmosphere — Atmosphere standard task: assess atmospheric evolution, greenhouse gases, human activity, carbon footprints and atmospheric pollutants. [AQA 4.9.1–4.9.3]	C9.7 Standard Task - The Atmosphere
23/11/26		• C9.8 Feedback - The Atmosphere — Use assessment feedback to strengthen evidence-based explanations of atmospheric change, pollution and greenhouse-gas impacts. [AQA 4.9.1–4.9.3] • C10.1 Finite and Renewable Resources — Distinguish finite and renewable resources and explain sustainable development; evaluate resource use using supplied data. [AQA 4.10.1.1] • C10.2 Water Safe to Drink — Distinguish potable from chemically pure water; explain freshwater treatment by filtration and sterilisation and desalination by distillation/reverse osmosis. [AQA 4.10.1.2]	C9.8 Feedback - The Atmosphere
30/11/26		• C10.3 Required Prac - Purification of Water — Required practical 8: analyse water samples from different sources by measuring pH and dissolved solids; purify by distillation and evaluate purity. [AQA 4.10.1.2; RP8] • C10.4 Treating Waste Water — Explain sewage and industrial waste-water treatment, including screening, sedimentation, anaerobic digestion of sludge and aerobic treatment of effluent. [AQA 4.10.1.3]	
07/12/26		• C10.5 Phytomining and Bioleaching — HT: explain extraction of copper from low-grade ores by phytomining and bioleaching, and subsequent recovery of copper. [AQA 4.10.1.4 (HT)] • C10.6 Life Cycle Assessments — Describe life-cycle assessments from raw-material extraction to disposal; interpret data and recognise uncertainty in environmental comparisons. [AQA 4.10.2.1] • C10.7 Reduce, Reuse, Recycle — Compare reduction of resource use, reuse and recycling in terms of energy, environmental impacts and resource conservation. [AQA 4.10.2.2]	C10.6 Life Cycle Assessments
14/12/26		• C10.8 Corrosion and its Prevention — Chemistry only: describe rusting as requiring oxygen and water; explain barrier coatings, galvanising and sacrificial protection. [AQA 4.10.3.1]	

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		• C10.9 Alloys as Useful Materials — Chemistry only: compare properties and uses of bronze, brass, gold alloys, different steels and aluminium alloys. [AQA 4.10.3.2]	
04/01/27		• C10.10 Ceramics, Polymers and Composites — Chemistry only: describe properties and applications of glass, clay ceramics, polymers and composites, linking structure and composition to uses. [AQA 4.10.3.3] • C10.11 Making Ammonia - The Haber Process — Chemistry only: explain the Haber process as reversible reaction of nitrogen and hydrogen, with an iron catalyst and compromise operating conditions. [AQA 4.10.4.1] • C10.12 The Economics of the Haber Process — HT, chemistry only: evaluate temperature, pressure, catalyst, yield, rate and cost trade-offs in industrial ammonia manufacture. [AQA 4.10.4.1 (HT)]	
11/01/27		• C10.13 Making Fertilisers — Chemistry only: explain manufacture of NPK fertilisers and the use of ammonia and suitable acids/compounds to produce ammonium salts. [AQA 4.10.4.2] • C10.14 - Standard Task - Using Resources — Using resources standard task: assess water treatment, resources, LCA, recycling, corrosion, alloys, materials, Haber process and fertilisers. [AQA 4.10.1–4.10.4]	C10.14 - Standard Task - Using Resources
18/01/27		• C10.15- Feedback - Using Resources — Review Using Resources assessment, improve extended responses and address misconceptions in practical methods, LCA and Haber equilibrium. [AQA 4.10.1–4.10.4]	C10.15- Feedback - Using Resources
25/01/27		No chemistry lesson specified in supplied plan.	
01/02/27	Y11 In-Class PPE's	Y11 In-Class PPE's	
08/02/27	Y11 EBAC PPE's in HALL	• PPE 1 Assessment - Paper 2 Exam — assess AQA GCSE Chemistry Paper 2 topics 4.6–4.10 (rates/equilibrium, organic chemistry, analysis, atmosphere and resources).	PPE 1 Assessment - Paper 2 Exam
22/02/27		• PPE 2 Assessment - FEEDBACK — analyse examination performance and reteach identified misconceptions using exam-style questions.	PPE 2 Assessment - FEEDBACK
01/03/27		No chemistry lesson specified in supplied plan.	
08/03/27		No chemistry lesson specified in supplied plan.	
15/03/27		No chemistry lesson specified in supplied plan.	
22/03/27		No chemistry lesson specified in supplied plan.	
12/04/27		• Off school - Mon & Tue • Required Practical Revision — revisit Chemistry (8462) required practicals 1–8, including separate-only titration (RP2) and ion identification (RP7); practise methods, variables, risk, data and evaluation.	Required Practical Revision
19/04/27		• Required Practical Revision — revisit Chemistry (8462) required practicals 1–8, including separate-only titration (RP2) and ion identification (RP7); practise methods, variables, risk, data and evaluation.	Required Practical Revision
26/04/27		• Exam season begins...	Exam season begins...
03/05/27		No chemistry lesson specified in supplied plan.	
10/05/27		No chemistry lesson specified in supplied plan.	
18/05/27		No chemistry lesson specified in supplied plan.	

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Date	Exams/ Assessments	Learning Intentions	Core Task/Assessments
24/05/27		No chemistry lesson specified in supplied plan.	
07/06/27		• Y11 Study Leave.	Y11 Study Leave.
14/06/27		No chemistry lesson specified in supplied plan.	
21/06/27		No chemistry lesson specified in supplied plan.	
28/06/27		No chemistry lesson specified in supplied plan.	
05/07/27		No chemistry lesson specified in supplied plan.	
12/07/27		No chemistry lesson specified in supplied plan.	