CHEMISTRY - Years 9, 10 and 11

GCSE CURRICULUM ROADMAP

BEDE'S AMBITIOUS ACADEMIC FACULTIES

KEY

- Topic + end-of-topic test
- Required practical (RP)
- Exam or milestone
- What you will learn
- ★ Separate (Triple) only
- 11 revision phase

Exam technique & past papers Timed papers, 6-mark answers, maths skills

GCSE EXAMS Chemistry Papers 1 & 2, from mid-May

Post 16+

WHERE CHEMISTRY CAN TAKE YOU

A Level Chemistry
Pharmacy & medicine
Chemical engineering
Forensic science
Materials science
Environmental science
Food science

SUMMER TERM — NEXT STEPS

MOCK 2 Paper 2 (late January)

PATHWAY REVIEW Separate or Combined Science

MOCK 1 Paper 1

Use every mock to find your gaps, then close them in the reteach lessons.

Mock 2 feedback + targeted reteach

Paper 2 reteach Topics 6–10

Mock 1 feedback + targeted reteach

Paper 1 reteach Topics 1–5

SPRING TERM — AUTUMN TERM

Interleaved reteach Papers 1 & 2 mixed, from mock targets

RP REVIEW All 8 required practicals

FINAL EXAM ENTRIES Confirmed by 21 February

TOPIC 10: Using resources
Earth's resources & potable water
Life cycle assessment & recycling
Using materials ★ Haber process & fertilisers ★
RP 8 Water purification

Y10 MOCK EXAM Paper 2: Topics 6–10, then 2 feedback lessons

Every topic ends with a test. Keep your feedback: it becomes your Year 11 revision map.

Y11

SUMMER TERM

TOPIC 8: Chemical analysis
Purity & chromatography
Tests for gases
Identifying ions ★
RP 6 Chromatography
RP 7 Identifying ions ★

TOPIC 7: Organic chemistry
Crude oil, fuels & cracking
Alkenes & alcohols ★
Polymers ★

TOPIC 5: Energy changes
Exothermic & endothermic Reaction profiles & bond energies Chemical & fuel cells ★ *Link: Biology: Bioenergetics · Physics: Energy*
RP 4 Temperature changes

SPRING TERM — AUTUMN TERM

GCSE Chemistry starts here! Biology, Chemistry and Physics take turns, so Chemistry comes back every few weeks.

TOPIC 9: Chemistry of the atmosphere
Evolution of the atmosphere
Greenhouse gases & climate
Atmospheric pollutants *Link: Biology: Ecology (carbon cycle)*

TOPIC 6: Rate & extent of chemical change
Rates & collision theory Catalysts
Reversible reactions & equilibrium
RP 5 Rates of reaction

TOPIC 4: Chemical changes
Reactivity of metals
Acids, alkalis & salts
Titrations ★
Electrolysis
RP 1 Making salts
RP 2 Titration ★
RP 3 Electrolysis

Y10

Y9

AUTUMN TERM — SPRING TERM — SUMMER TERM

TOPIC 1: Atomic structure & the periodic table
Atoms, elements & mixtures
Model of the atom & isotopes
The periodic table Transition metals ★ *Link: Physics: Atomic structure*

TOPIC 2: Bonding, structure & properties of matter
Ionic, covalent & metallic bonding
Structure & properties Diamond, graphite & graphene
Nanoparticles ★

TOPIC 3: Quantitative chemistry
Conservation of mass Moles & reacting masses Yield & atom economy ★
Concentrations in mol/dm³ ★
Gas volumes ★

Y9 MOCK EXAM Paper 1: Topics 1–3, with revision & feedback lessons (Topics 4–5 come in Year 10)

EXAM BOARD: AQA