Cornwallis Academy
Ambitions for All

SMILE
SUCCESSFUL | MOTIVATED | INSPIRED | LEARNING | EXCITED & ENGAGED

A-level Chemistry

Curriculum Intent

To equip our young people with the knowledge needed to understand the world and technology around them. To encourage a curiosity in the natural, physical and chemical world around them. To foster critical thinking and a provide our young people with a chance to broaden their horizons and provide multiple routes into STEM careers.

Assessment

There are **three written papers** plus the **Practical Endorsement**.

Paper 1: Periodic table, elements and physical chemistry

- **Duration:** 2 hours 15 minutes
- **Modules covered:**
  - Module 1: Development of practical skills
  - Module 2: Foundations in chemistry
  - Module 3: Periodic table and energy
  - Module 5: Physical chemistry and transition elements

Paper 2: Synthesis and analytical techniques

- **Duration:** 2 hours 15 minutes
- **Modules covered:**
  - Module 1: Development of practical skills
  - Module 2: Foundations in chemistry
  - Module 4: Core organic chemistry
  - Module 6: Organic chemistry and analysis

Paper 3: Unified chemistry

- **Duration: 1 hour 30 minutes**
- **Modules covered:**
  - Modules 1–6 (entire specification)
- **Focus:**
  - Synoptic questions across all topics
  - Unfamiliar contexts and problem solving
  - Practical and data analysis skills
  - Mathematical and multi-step reasoning

Practical Endorsement

- Continuous assessment throughout the course (teacher-assessed)
- Pass/Fail
- Required practical skills embedded across Modules 1–6

Homework

Online platform: www.kerboodle.com

Kerboodle is an online learning platform designed to support A-level Chemistry students with everything from day-to-day classwork to final exam revision. It gives students access to digital textbooks, revision resources, exam-style questions, quizzes, required practical support, maths-skills practice and interactive activities — all matched closely to their exam board specification.

Students can use Kerboodle to revise independently, complete teacher-set assignments, track their progress and strengthen weaker topics using self-assessment checklists, podcasts, worked examples and practice questions. The platform is especially useful for consolidating difficult concepts, practising exam technique and preparing for practical endorsement skills throughout the course.

Links to National Curriculum / Syllabus Specifications

OCR Chemistry A (H432)

https://www.ocr.org.uk/qualifications/as-and-a-level/chemistry-a-h032-h432-from-2015/

Interested to know more?

To read:
- *Chemguide* (chemguide.co.uk) – clear explanations of tricky A-level concepts
- OCR A Chemistry textbook (Hodder Education) – specification-aligned notes and exam questions
- Physics & Maths Tutor (PMT) revision notes – concise summaries + exam practice by topic

To watch:
- FreeScienceLessons (YouTube) – exam-focused walkthroughs and clear visuals
- FuseSchool Chemistry videos – good for core concepts and animations
- Cognito Chemistry (YouTube) – short, high-impact revision clips with questions

To listen:
- *Chemistry in its Element* (Royal Society of Chemistry podcast) – real-world chemistry stories
- *Crash Course Chemistry Audio / podcast versions* – fast concept reinforcement
- BBC Sounds – science-related episodes (search chemistry topics for A-level links)

To visit:
- Science Museum (London) – interactive galleries on atoms, materials, polymers, and modern chemistry
- The Royal Institution (London) – historic lectures and demonstrations (including famous Christmas Lectures)
- Oxford University Museum of Natural History – exhibits linking chemistry, minerals, and materials science