

A Level Chemistry OCR (A Level Chemistry A Spec)

Overview: A Level Chemistry at a UTC offers a comprehensive study of chemical principles and their practical applications. In our unique setting, students have access to industry-standard lab facilities, allowing them to experience the practical side of chemistry that aligns closely with real-world industry practices. This hands-on approach helps students to not only master theoretical concepts but also to develop the technical skills needed for further study and employment in chemical and related fields.

Why Study A Level Chemistry?

Chemistry is known as the central science, bridging the gap between biology and physics, and providing a foundation for understanding the material world. It plays a crucial role in numerous industries, including pharmaceuticals, engineering, environmental science, and more. A Level Chemistry is ideal for students who enjoy problem-solving and practical work, and it opens doors to a wide range of scientific and technical degrees and careers.

Potential Career Pathways:

A Level Chemistry is essential for those aiming to pursue university courses in:-

- Medicine
- Chemical Engineering
- Biochemistry
- Environmental Science
- Pharmacy

It is also highly valuable for careers in research, forensics, materials science, and the energy sector.

Topics Covered:

- Atoms, Compounds, Molecules, and Equations
- Acid-Base and Redox Reactions
- Electrons, Bonding, and Structure
- Periodicity
- Qualitative Analysis
- Enthalpy Changes
- Reaction Rates and Equilibrium (Qualitative)
- Organic Synthesis
- Analytical Techniques
- Reaction Rates and Equilibrium (Quantitative)
- Enthalpy, Entropy, and Free Energy
- Redox and Electrode Potentials
- Transition Elements
- Aromatic Compounds
- Carbonyl Compounds
- Carboxylic Acids and Esters
- Polymers
- Organic Synthesis
- Chromatography and Spectroscopy

Assessment:

- Periodic Table, Elements and Physical Chemistry (Paper 1): 2 hours 15 minutes written paper, 37% of A Level.
- Synthesis and Analytical Techniques (Paper 2): 2 hours 15 minutes written paper, 37% of A Level.
- Unified Chemistry (Paper 3): 1 hour 30 minutes written paper, 26% of A Level.

Entry Requirements:

- Grade 6 in Chemistry GCSE or
- Grade 6/6 in Combined Science GCSE
- Grade 6 in GCSE Mathematics
- Grade 5 in GCSE English Language

