



Chemistry

OCR A Level in Chemistry A





Assessments

- There are 3 exams
- Periodic table, elements and physical chemistry (2 hours 15 minutes) assesses content from Modules 1,2,3 and 5.
- Synthesis and analytical techniques (2 hours 15 minutes) assesses content from 1,2,4 and 6, and unified chemistry (1 hour 30 minutes) assesses content from all modules 1-6.
- Within A-Level Chemistry, 20% of the marks available within written examinations will be for assessment of mathematics.



- **Specific entry requirements for Chemistry:**
- Minimum of grade 6 in Chemistry or a grade 7 in combined science.
- Grade 5 in English Language and Maths.



Content Overview	Assessment Overview	
Content is split into six teaching modules: - Module 1 – Development of practical skills in chemistry - Module 2 – Foundations in chemistry - Module 3 – Periodic table and energy - Module 4 – Core organic chemistry - Module 5 – Physical chemistry and transition elements - Module 6 – Organic chemistry and analysis Component 01 assesses content from modules 1, 2, 3 and 5. Component 02 assesses content from modules 1, 2, 4 and 6. Component 03 assesses content from all modules (1 to 6).	Periodic table, elements and physical chemistry (01) 100 marks 2 hours 15 minutes written paper	37% of total A level
	Synthesis and analytical techniques (02) 100 marks 2 hours 15 minutes written paper	37% of total A level
	Unified chemistry (03) 70 marks 1 hour 30 minutes written paper	26% of total A level
	Practical Endorsement in chemistry (04) (non exam assessment)	Reported separately (see Section 5)



• Curriculum Content:

Module 1 – Development of practical skills in chemistry

Module 2 – Foundations in chemistry

Module 3 – Periodic table and energy

Module 4 – Core organic chemistry

Module 5 – Physical chemistry and transition elements

Module 6 – Organic chemistry and analysis



- Module 1 – Development of practical skills in chemistry • Practical skills assessed in a written examination • Practical skills assessed in the practical endorsement
- Module 2 – Foundations in chemistry • Atoms, compounds, molecules and equations • Amount of substance, • Acid–base and redox reactions • Electrons, bonding and structure
- Module 3 – Periodic table and energy • The periodic table and periodicity • Group 2 and the halogens • Qualitative analysis • Enthalpy changes • Reaction rates and equilibrium (qualitative)



- Module 4 – Core organic chemistry • Basic concepts • Hydrocarbons • Alcohols and haloalkanes • Organic synthesis • Analytical techniques (IR and MS)
- Module 5 – Physical chemistry and transition elements • Reaction rates and equilibrium (quantitative) • pH and buffers • Enthalpy, entropy and free energy • Redox and electrode potentials • Transition elements
- Module 6 – Organic chemistry and analysis • Aromatic compounds • Carbonyl compounds • Carboxylic acids and esters • Nitrogen compounds • Polymers • Organic synthesis • Chromatography and spectroscopy (NMR)



5g. Practical endorsement

The Practical Endorsement is common across Chemistry A and Chemistry B (Salters). It requires a minimum of 12 practical activities to be completed

from the Practical Activity Groups (PAGs) defined below (Fig. 1).

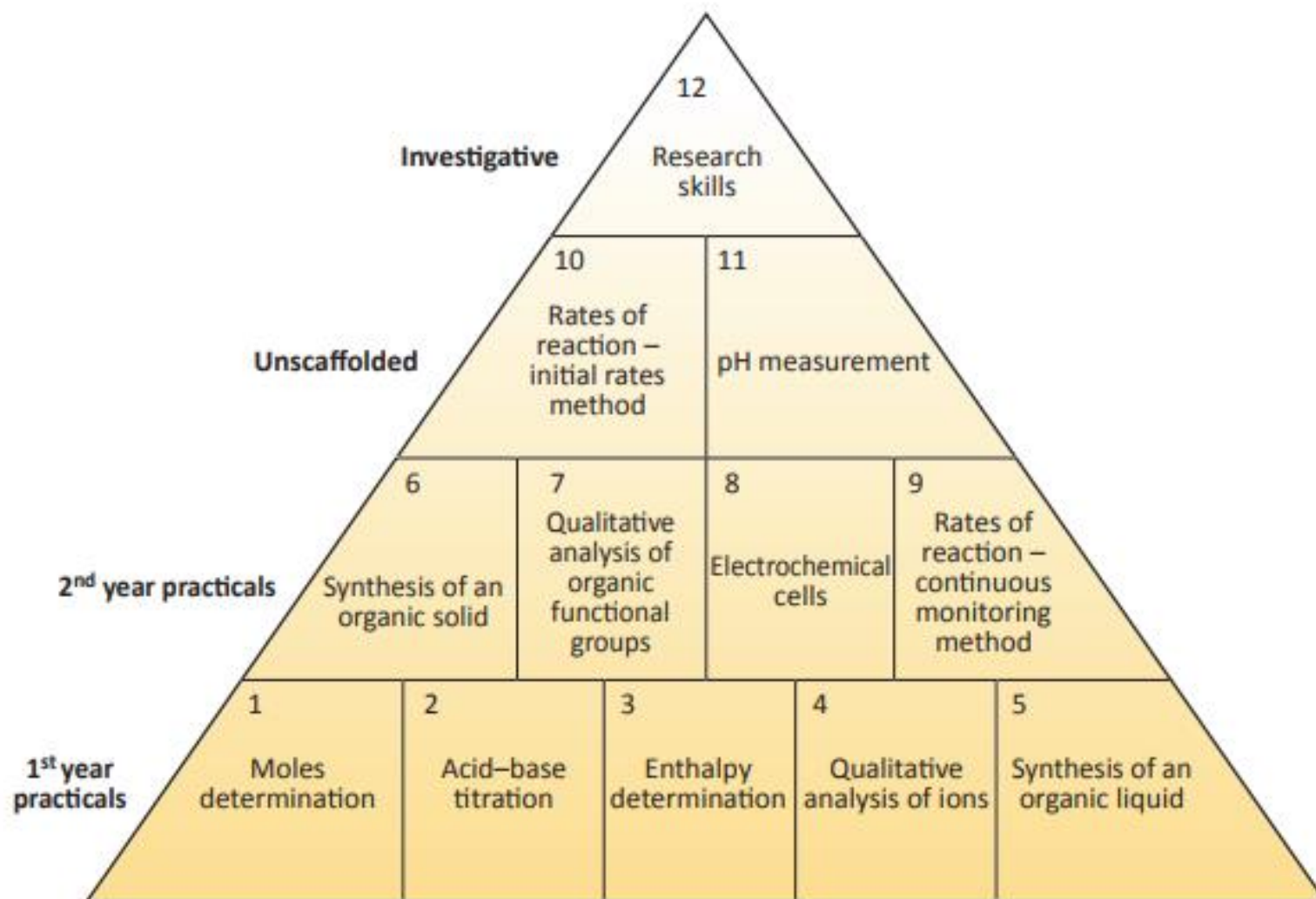


Fig. 1 OCR's Practical Activity Groups (PAGs), also see Table 1