



# AQA GCSE Combined Science - Chemistry Higher Tier 8464

[Advanced information June 2022 - GCSE Combined Science: Trilogy \(8464\) \(aqa.org.uk\)](https://www.aqa.org.uk)

**Unlike some other subjects, chemistry has many links between topics, so very little content has changed.**

Top tips from AQA:

- The format/structure of the papers remains unchanged.
- Each paper may cover some, or all, of the content in the listed topic.
- Assessment of practical skills, maths skills, and Working Scientifically skills will occur throughout all the papers.
- Topics not explicitly given in any list may appear in low tariff (low scoring) questions or via 'linked' questions. Linked questions are those that bring together knowledge, skills and understanding from across the specification.
- Students will still be expected to apply their knowledge to unfamiliar contexts.

## **Paper 1 Chemistry Higher 8464/C/1H 27.05.22 am**

For this paper, the following list shows the major focus of the content of the exam:

- 5.2.2 How bonding and structure are related to the properties of substances
- 5.3.2 Use of amount of substance in relation to masses of pure substances
- 5.4.1 Reactivity of metals
- 5.4.2 Reactions of acids
- 5.4.3 Electrolysis
- 5.5.1 Exothermic and endothermic reactions

## **Paper 2 Chemistry Higher 8464/C/2H 20.06.22 am**

For this paper, the following list shows the major focus of the content of the exam:

- 5.6.1 Rate of reaction
- 5.6.2 Reversible reactions and dynamic equilibrium
- 5.7.1 Carbon compounds as fuels and feedstock
- 5.8.1 Purity, formulations and chromatography
- 5.9.1 The composition and evolution of the Earth's atmosphere
- 5.10.1 Using the Earth's resources and obtaining potable water

### **Required practical activities that will be assessed:**

- **8: preparation of a pure, dry sample of a soluble salt from an insoluble oxide or carbonate**, using a Bunsen burner to heat dilute acid and a water bath or electric heater to evaporate the solution.
- **9: investigate what happens when aqueous solutions are electrolysed using inert electrodes**. This should be an investigation involving developing a hypothesis.
- **10: investigate the variables that affect temperature changes in reacting solutions** such as, e.g., acid plus metals, acid plus carbonates, neutralisations, displacement of metals.

### **Required practical activities that will be assessed:**

- **11: investigate how changes in concentration affect the rates of reactions** by a method involving measuring the volume of a gas produced and a method involving a change in colour or turbidity. This should be an investigation involving developing a hypothesis.
- **12: investigate how paper chromatography can be used to separate and tell the difference between coloured substances**. Students should calculate R<sub>f</sub> values.

### **Topics not assessed in this paper:**

- Not applicable

### **Topic not assessed in this paper:**

- 5.8.2 Identification of common gases