

Qualification: AQA (8464) GCSE Combined Science Chemistry Foundation

What will be assessed in 2022?

Paper Chemistry 1F 8464/C/1F

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

- 5.1.2 The periodic table
- 5.2.2 How bonding and structure are related to the properties of substances
- 5.2.3 Structure and bonding of carbon
- 5.4.1 Reactivity of metals
- 5.4.2 Reactions of acids
- 5.4.3 Electrolysis

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

- Required practical activity 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.
- Required practical activity 9: investigate what happens when aqueous solutions are electrolysed using inert electrodes. This should be an investigation involving developing a hypothesis.
- Required practical activity 10: investigate the variables that affect temperature changes in reacting solutions such as, eg, acid plus metals, acid plus carbonates, neutralisations, displacement of metals.

What won't be assessed in 2022?

Not applicable

Additional support provided by the exam board for the 2022 year only? None

What will be assessed in 2022?

Paper Chemistry 2F 8464/C/2F

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
- 5.9.3 Common atmospheric pollutants and their sources
- 5.10.1 Using the Earth's resources and obtaining potable water

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

- Required practical activity 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
- Required practical activity 12: investigate how paper chromatography can be used to separate and tell the difference between coloured substances. Students should calculate R_f values.

What won't be assessed in 2022?

- 5.9.2 Carbon dioxide and methane as greenhouse gases

Greenhouse gases in the atmosphere maintain temperatures on Earth high enough to support life.

Describe the greenhouse effect in terms of the interaction of short and long wavelength radiation with matter.

Water vapour, carbon dioxide and methane are greenhouse gases. Some human activities increase the amounts of greenhouse gases in the atmosphere. These include:

- carbon dioxide
- methane.

An increase in average global temperature is a major cause of climate change. There are several potential effects of global climate change.

The carbon footprint is the total amount of carbon dioxide and other greenhouse gases emitted over the full life cycle of a product, service or event.

The carbon footprint can be reduced by reducing emissions of carbon dioxide and methane.

Additional support provided by the exam board for the 2022 year only? None

