

KS4 Chemistry

BIG PICTURE

There are six papers: two biology, two chemistry and two physics. Each of the papers will assess knowledge and understanding from distinct topic areas.

Chemistry Paper 1

Area of specification	Subtopics	Required Practical
Atomic structure and the periodic table	A simple model of the atom, symbols, relative atomic mass, electronic charge and isotopes The periodic table	None
Bonding structure and the properties of matter	Chemical bonds, ionic, covalent and metallic How bonding and structure are related to the properties of substances Structure and bonding of carbon	None
Quantitative chemistry	Conservation of mass and the quantitative interpretation of chemical equations Use of amount of substance in relation to masses of pure substances Use of amount of substance in relation to volumes of gases	none
Chemical changes	Reactivity of metals Reactions of acids Electrolysis	Making salts Electrolysis
Energy changes	Exothermic and endothermic reactions	Temperature changes

chemistry Paper 2

Area of specification	Subtopics	Required Practical
The rate and extent of chemical change	Rate of reaction Reversible reactions and dynamic equilibrium	Rates of reaction
Organic chemistry	Carbon compounds as fuels and feedstock Fractional distillation	None
Chemical analysis	Purity, formulations and chromatography Identification of common gases	Chromatography
Chemistry of the atmosphere	The composition and evolution of the Earth's atmosphere Carbon dioxide and methane as greenhouse gases Common atmospheric pollutants and their sources	None
Using resources	Using the Earth's resources and obtaining potable water Life cycle assessment and recycling Using materials	Water purification

How it is assessed:

- Written exam: 1hr 15minutes
- Foundation and Higher tiers
- 70 marks
- 16.7% of GCSE

A mixed of multiple choice, structure, closed short answer and open response.