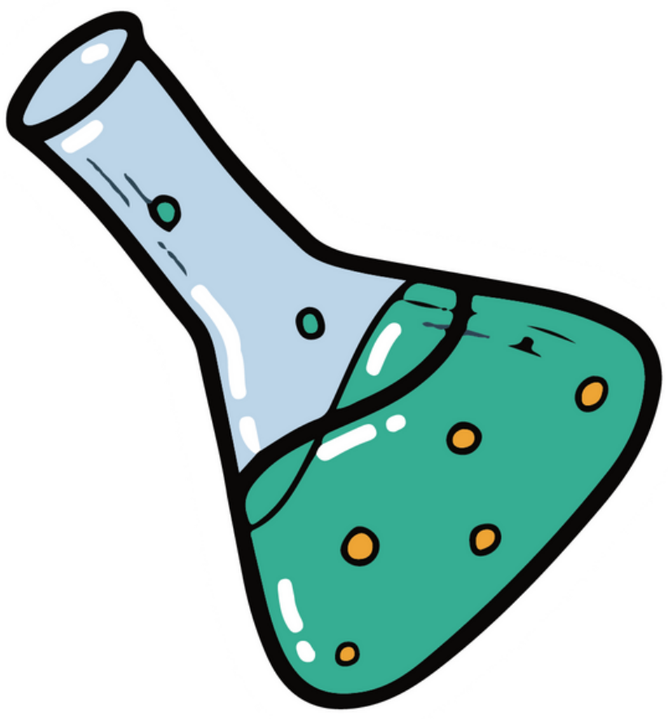
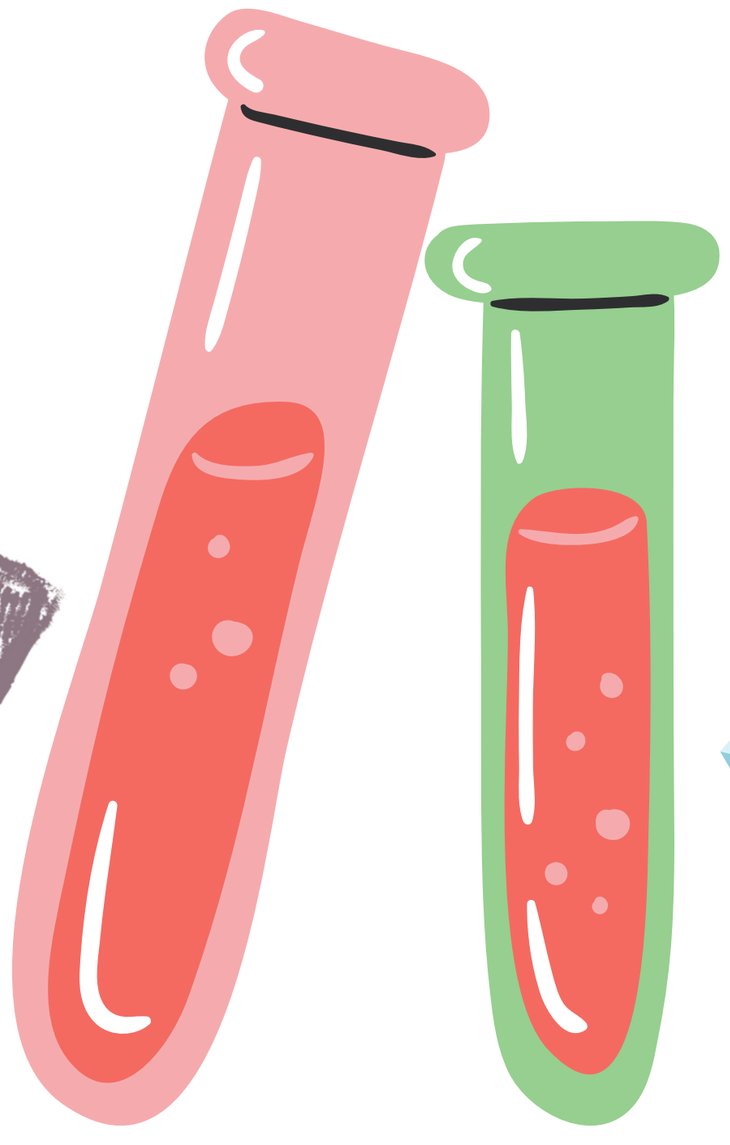
STEMPREP
STEERING YOU TO SUCCESS!

GCSE Chemistry

WHAT IS IN THE COURSE?





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The 10 topics in GCSE Chemistry

These lessons follow the AQA Spec, however, the spec is similar across the exams boards.

Paper 1

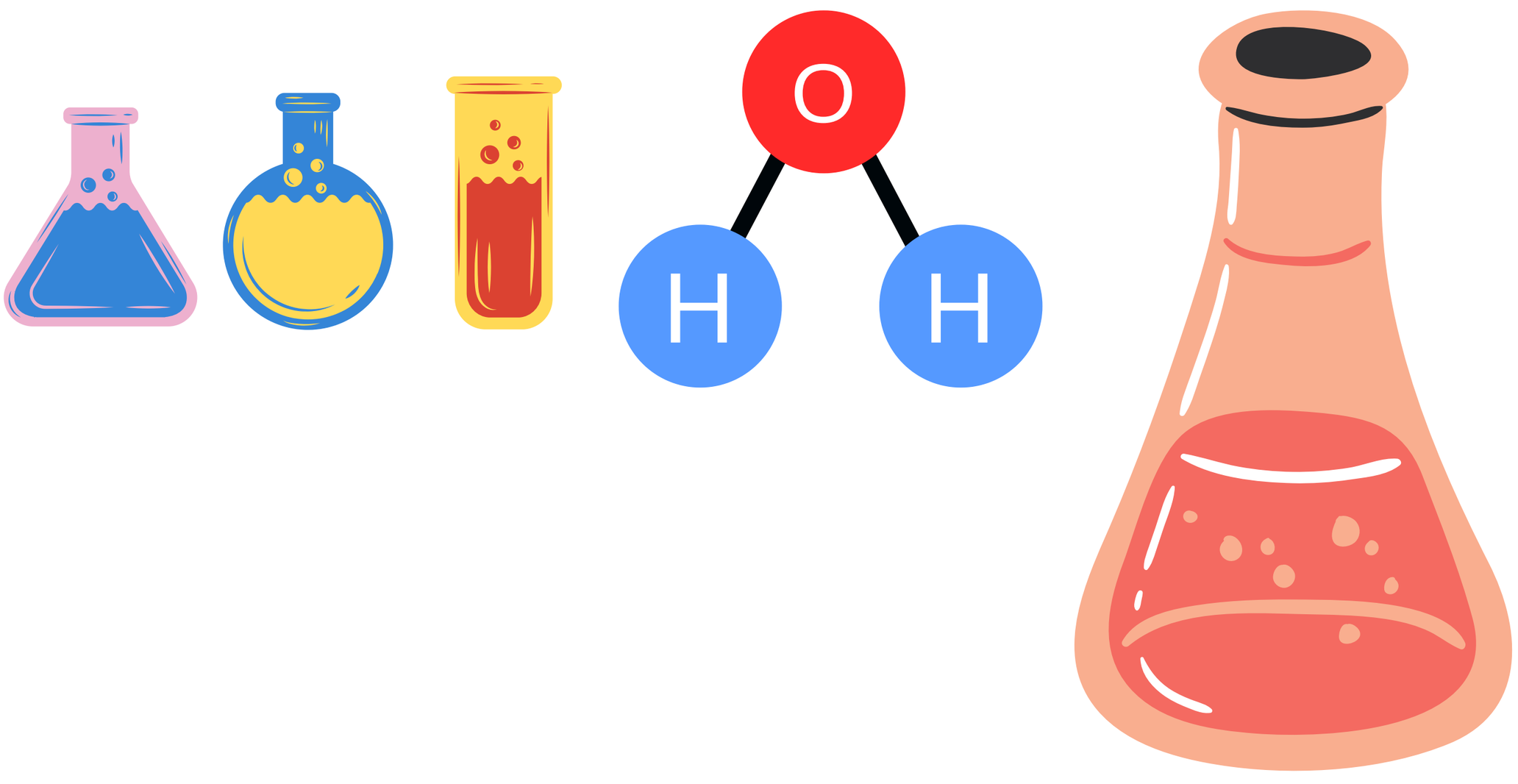
Atomic structure and the periodic table

Bonding, structure, and the properties of matter

Quantitative chemistry

Chemical changes

Energy changes



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Paper 2

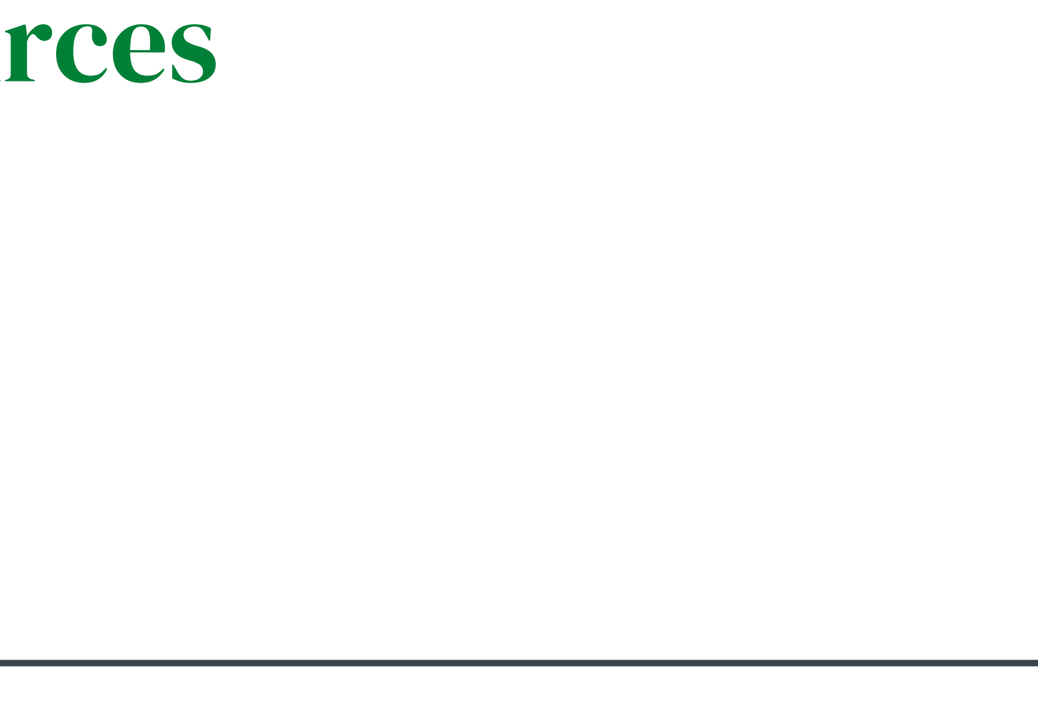
The rate and extent of chemical changes

Organic chemistry

Chemical analysis

Chemistry of the atmosphere

Using resources



WHAT WILL YOU LEARN?

ATOMIC STRUCTURE AND THE PERIODIC TABLE

A simple model of the atom, symbols, relative atomic mass, electronic charge and isotopes

The periodic table

Properties of transition metals (triple only)

Oxidation and reduction in terms of electrons

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

Bulk and surface properties of matter including nanoparticles (triple only)

Titrations (triple only)

Strong and weak acids (triple only

WHAT WILL YOU LEARN?

QUANTITATIVE CHEMISTRY

Chemical measurements, conservation of mass and the quantitative interpretation of chemical equations

Use of amount of substance in relation to masses of pure substances

Yield and atom economy of chemical reactions (triple only)

Using concentrations of solutions (triple only)

Use of amount of substance in relation to volumes of gases (triple only)

CHEMICAL CHANGES

Reactivity of metals

Reactions of acids

Electrolysis

ENERGY CHANGES

Exothermic and endothermic reactions

Chemical cells and fuel cells (triple only)

WHAT WILL YOU LEARN?

THE RATE AND EXTENT OF CHEMICAL CHANGE

Rate of reaction

Reversible reactions and dynamic equilibrium

ORGANIC CHEMISTRY

Carbon compounds as fuels and feedstock

Reactions of alkenes and alcohols (triple only)

Synthetic and naturally occurring polymers (triple only)

CHEMICAL ANALYSIS

Purity, formulations and chromatography

Identification of common gases

Identification of ions by chemical and spectroscopic means (triple only)

CHEMISTRY OF THE ATMOSPHERE

The composition and evolution of the Earth's atmosphere

Carbon dioxide and methane as greenhouse gases

Common a tmospheric pollutants and their sources

WHAT WILL YOU LEARN?

USING RESOURCES

Using the Earth's resources and obtaining potable water

Life cycle assessment and recycling

Using materials (triple only)
The Haber process and the use of NPK fertilisers (triple only)

ANSWERING EXAM QUESTIONS

The different exam questions

How to answer exam questions

Past paper walkthrough