



Separate Chemistry KS4 Learning Journey

YEAR

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GCSE The atmosphere

The Earth's atmosphere is dynamic and ever changing. This is as a result of human interference and natural cycles.

GCSE Using our resources

The study of corrosion, alloys, ceramics, polymers, composites and the Haber process to make fertilisers.



GCSE Chemical analysis

The use of chemical reactions or instrumental methods to identify chemicals and analyse mixtures.

GCSE Polymers

Man-made and natural polymers, including nylon and DNA.

GCSE Organic reactions

An extended study of the chemistry of compounds where the main element is carbon.

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GCSE Energy changes

The transfer of energy during chemical reactions. The use of these transfers in batteries and fuel cells.

GCSE Rates and equilibrium

Determining the effect of variables on reaction speeds and the direction they run.

GCSE Crude oil and fuels

An introduction to the chemistry of carbon compounds using crude oil as a starting point.

GCSE Electrolysis

The use of electricity in the decomposition of ionic compounds.

GCSE Chemical calculations

The determination of the composition of chemicals and how this affects their reacting quantities.

GCSE Chemical change

Investigating chemical reactions such as displacement in a logical and systematic way.

GCSE Atomic Structure

How history has shaped our understanding of the periodic table, atoms and their reactions.

GCSE Covalent compounds

The study of the element carbon. How it and other non-metals react.

GCSE Ionic compounds and metals

The structure of metals and how they react with non-metals.

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GCSE Earth's Resources

How chemists seek to minimise the use of limited resources such as energy and water, managing the environmental impact of human activity.

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