

AUTUMN 1

Atoms and Elements

Elements, compounds, periodic table, atomic structure.

Prior Learning

The periodic table of elements is another Y7 topic, introducing the idea of classifying elements into groups with similar characteristics. Particle model in Y7 has provided background to particle theory which pupils will build on.

AUTUMN 2

Neutralisation

Acid-base reactions, pH scale, neutralisation, making and naming salts.

Prior Learning

Acids and bases topic in Y7 introduced ideas about reactions between them leading to production of salts and water. Simple chemical reactions in Y8 introduces idea of different chemical reactions.

SPRING 1

Rates

Measuring rates of reaction, factors affecting rates of reaction, reversible reactions.

Prior Learning

Simple chemical reactions in Y8 introduces idea of different chemical reactions, including exo/endermic reactions.

SPRING 2

Atmosphere

Evolution of the atmosphere, composition of the atmosphere, greenhouse effect, global warming, atmospheric pollution.

Prior Learning

Y8 environmental chemistry provides background of modern atmospheric composition, plus evolution of atmosphere and effects of various atmospheric pollutants.

SUMMER 1

Getting Metals

Reactivity series, extracting metals, redox reactions, electrolysis.

Prior Learning

Y8 Earth's resources introduces reactivity series and makes links to this in simple terms about extracting metals from the Earth's crust.

SUMMER 2

Energy In Reactions

Exo/endermic reactions, energy profile diagrams, bond energies.

Prior Learning

Building on prior chemistry topics from this year and incorporating many practical skills from Y7-9.

CAREERS LINKS

Particle physicist, economist, environmental chemist/scientist, journalism, scientific communicator, geologist, materials scientist, metallurgist, engineering, research chemist, mechanical engineers, safety analyst, forensic scientist.

CHARACTER LINKS

Motivation, resilience and teamwork (performance virtues).
Confidence and determination
Listening, critical thinking and problem solving (intellectual virtues).
Consideration and construction of moral and ethical arguments in science (moral virtues).

KEY ASSESSMENT DATES

Summative and synoptic testing in October, February and May.