KS3 Curriculum Overview – Chemistry

Year 7

Mixtures and Separation
- Mixtures
- Solutions
- Evaporation
- Chromatography
- Distillation

Acids and Alkalis
- Hazards
- Indicators
- Acidity and Alkalinity
- Neutralisation
- Neutralisation in Daily Life

The Particle Model
- Solids, liquids and Gases
- Particles
- Brownian Motion
- Diffusion
- Air Pressure

Atoms, elements and molecules
- The Air We Breathe
- Earth's Elements
- Metals and Non-Metals
- Making Compounds
- Chemical Reactions

Year 8

Combustion
- Fuels
- Oxidation
- Fire Safety
- Air Pollution
- Global Warming

The periodic Table
- Atomic Model
- Chemical Properties
- Mendleev's Table
- Physical Trends
- Chemical Trends

Metals and their uses
- Metal Properties
- Corrosion
- Metals and Water
- Metals and Acids
- Pure Metals and Alloys

Rocks
- Rocks and their Uses
- Igneous and Metamorphic
- Weathering and Erosion
- Sedimentary Rocks
- Materials in the Earth

Year 9

Making Materials
- About ceramics
- Polymers
- Composite Materials
- Problems with Materials
- Recycling Materials

Reactivity
- Types of Explosion
- Reactivity
- Energy and Reactions
- Displacement
- Extracting

Separation Techniques
- Atoms
- Separating mixtures
- History of the Periodic Table

Reactivity
- Reactions of metals
- Reactivity series

KS4 Curriculum Overview – Chemistry

Specification at a glance

- 1. Atomic structure and the periodic table
- 2. Bonding, structure, and the properties of matter
- 3. Quantitative chemistry
- 4. Chemical changes
- 5. Energy changes
- 6. The rate and extent of chemical change
- 7. Organic chemistry
- 8. Chemical analysis
- 9. Chemistry of the atmosphere
- 10. Using resources

Year 10

Atomic structure and the Periodic Table → Bonding, structure and the properties of matter → Chemical changes → Energy changes → Quantitative chemistry → The rate and extent of chemical change

Year 11

The rate and extent of chemical change → Organic Chemistry → Chemical analysis → Chemistry in the atmosphere → Using resources