KS3 Curriculum Overview – Chemistry 2022



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

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 2022



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



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



The rate and extent of chemical change

Organic Chemistry Chemical analysis

Chemistry in the atmosphere

Using resources