

## KS4 - Combined Chemistry - Intent Statement

- Atomic Structure & The Periodic Table (5.1)
  - A simple model of the atom (5.1.1) [Chapter 1]
  - The Periodic Table (5.1.2) [Chapter 2]
- Bonding, Structure & the Properties of Matter (5.2)
  - Chemical bonds, ionic, covalent and metallic (5.2.1) [Chapter 3]
  - How bonding and structure are related to properties (5.2.2) [Chapter 3]
  - Structure and bonding of carbon (5.2.3) [Chapter 3]
- Quantitative Chemistry (5.3)
  - Chemical measurement and conservation of mass (5.3.1) [Chapter 4]
  - Use of amount of substance (5.3.2) [Chapter 4]
- Chemical Changes (5.4)
  - Reactivity of metals (5.4.1) [Chapter 5]
  - Reactions of acids (5.4.2) [Chapter 5]
  - Electrolysis (5.4.3) [Chapter 6]
- Energy Changes (5.5)
  - Exothermic and endothermic reactions (5.5.1) [Chapter 7]
- The Rate & Extent of Chemical Change (5.6)
  - Rate of reaction (5.6.1) [Chapter 8]
  - Reversible reactions and dynamic equilibrium (5.6.2) [Chapter 8]
- Organic Chemistry (5.7)
  - Carbon compounds as fuel and feedstock (5.7.1) [Chapter 9]
- Chemical Analysis (5.8)
  - Purity, formulations and chromatography (5.8.1) [Chapter 10]
  - Identification of common gases (5.8.2) [Chapter 10]
- Chemistry of the Atmosphere (5.9)
  - The composition and evolution of the Earth's atmosphere (5.9.1) [Chapter 11]
  - Carbon dioxide and methane as greenhouse gases (5.9.2) [Chapter 11]
  - Common atmospheric pollutants and their sources (5.9.3) [Chapter 11]
- Using Resources (5.10)
  - Using the Earth's resources and obtaining potable water (5.10.1) [Chapter 12]
  - Life cycle assessment and recycling (5.10.2) [Chapter 12]