

Top-Level Overview for Key Stage 4 Curriculum: Science

1. Endpoint for the end of KS4:

- Students develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.
- Students develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them.
- Students are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.
- Students are able to synthesise substantive knowledge, procedural knowledge and disciplinary knowledge in order to answer exam questions.

2. Topic Overview

Year Group	Autumn Term	Spring Term	Summer Term
	Topics:	Topics:	Topics:
10	1. Biology: Key Concepts in Biology 2. Biology: Cells and Control 3. Chemistry: The Periodic Table 4. Chemistry: Ionic and Covalent Bonding 5. Physics: Forces and Energy 6. Physics: Motion	1. Biology: Genetics 2. Chemistry: Electrolytic processes 3. Chemistry: Using and Obtaining Metals 4. Physics: Waves	1. Biology: Natural Selection and Genetic Modification 2. Biology: Health and Disease 3. Chemistry: Acids and Alkalis 4. Chemistry: Calculations involving masses 5. Physics: Electromagnetic Spectrum
11	1. Biology: Ecosystems 2. Biology: Exchange and Transport 3. Chemistry: Fuels and Earth's Atmosphere 4. Chemistry: Rates of Reaction and Heat Energy Changes. 5. Chemistry: Dynamic Equilibrium 6. Physics: Radioactivity 7. Physics: Electricity and Circuits	1. Biology: Plant Structure and Function 2. Biology: Animal Coordination and Hormonal Control 3. Physics: Magnetism and Electromagnetic Induction 4. Physics: Energy calculations	