

Long Term Curriculum Planning - Years 10 and 11

HT: Biology, Chemistry and Physics taught simultaneously. Timings of when specific modules of work are being taught will vary between classes.

| | Description | Summative Performance Of Understanding |
|--|---|--|
| B3 - Infection and response | Communicable (infectious diseases) Human defence systems Vaccination The development of drugs Plant diseases and defence responses | <p>Lesson starter “prior knowledge” quizzes. Plenary allowing students to address the learning question with new knowledge. Assessed long answer past exam questions. End of module formal assessment. Mock exams in year 10 and 11.</p> |
| B4 - Bioenergetics | Photosynthesis Respiration Responses to exercise | |
| B5 - Homeostasis and response | Homeostasis The human nervous system Hormonal coordination in humans Plant hormones (separate Biology only) | |
| B6 - Inheritance, variation and evolution | Sexual and asexual reproduction Meiosis DNA Genetic inheritance Variation Evolution | |
| B7 - Ecology | Adaptations, interdependence and competition Organisation of an ecosystem Biodiversity and the effect of human interactions on an ecosystem | |

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| C3 - Quantitative chemistry | Chemical measurements Conservation of mass Chemical equations | <p>Lesson starter “prior knowledge” quizzes. Plenary allowing students to address the learning question with new knowledge. Assessed long answer past exam questions. End of module formal assessment. Mock exams in year 10 and 11.</p> |
| C4 - Chemical changes | Reactivity of metals Reactions of acids Electrolysis | |
| C5 - Energy changes | Exothermic and endothermic reactions Reaction profiles Energy changes | |
| C6 - The rate and extent of chemical change | Rate of reaction Collision theory Reversible reactions and dynamic equilibrium | |
| C7 - Organic chemistry | Crude oil Fractional distillation Cracking | |
| C8 - Chemical analysis | Purity Formulations Chromatography Identification of common gases | |
| C9 Chemistry of the atmosphere | The Earth’s early atmosphere Greenhouse gases Global climate change Atmospheric pollutants and their sources | |
| C10 - Using resources | The Earth’s resources and sustainable development Potable water Recycling | |

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|--|--|--|
| P2 - Electricity | Current, potential difference and resistance. Series and parallel circuits. Domestic uses and safety. Energy transfers. | <p>Lesson starter “prior knowledge” quizzes. Plenary allowing students to address the learning question with new knowledge. Assessed long answer past exam questions. End of module formal assessment. Mock exams in year 10 and 11.</p> |
| P3 - Particle model of matter | Changes of state and the particle model. Internal energy and energy transfers. Particle model and pressure. | |
| P4 - Atomic structure | Atoms and isotopes. Atoms and nuclear radiation. | |
| P5 - Forces | Forces and their interactions. Forces and motion. Momentum. | |
| P6 - Waves | Waves in air, fluids and solids. Electromagnetic waves. | |
| P7 - Magnetism and electromagnetism | Permanent and induced magnetism. Magnetic forces and fields. | |
| P8 - Space physics (separates only) | Solar system Stability of orbital motions Satellites Red-shift | |