**KS4 Science Curriculum 2024-25**

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|  | Year 10 | | Year 11 | |
|  | Knowledge and skills | Curriculum links | Knowledge and skills | Curriculum links |
| Cycle 1 | **Paper 1 content**  **Biology –** Topic 1: Cell biology, and Topic 2: Organisation  **Chemistry –** Topic 1: Atomic structure and the periodic table, and Topic 2: Bonding, structure, and the properties of matter  **Physics –** Topic 1: Energy, and Topic 2: Electricity  **Cycle 1 assessments:**  Topics 1 and 2 | Maths – throughout all topics.  DT – links to digestion and food groups. | **Paper 2 content**  **Biology –** Topic 6:Inheritance, variation and evolution  **Chemistry –** Topic 7: Organic Chemistry, and Topic 8: Chemical analysis  **Physics –** Topic 5: Forces (Forces and motion), and Topic 6: Waves (wave properties)  **AUTUMN MOCKS: Paper 1 content** (combined or separate science content, dependent on set)  Bio – Topics 1-4  Chem – Topics 1-5  Phys – Topics 1-4 | Maths – throughout all topics. Interpreting graphs.  RE – Evolution. |
| Cycle 2 | **Paper 1 content**  **Biology –** Topic 3: Infection and response, and Topic 4: Bioenergetics  **Chemistry –** Topic 3: Quantitative chemistry, Topic 4: Chemical changes, and Topic 5: Energy changes  **Physics –** Topic 3: Particle model of matter, and Topic 4: Atomic structure  **Cycle 3 assessments:**  Topics 3 and 4 | Maths – throughout all topics. Recognising patterns. Reading and drawing graphs.  PE – movement, circulation, link to fitness  RSE – Personal health, healthcare. | **Paper 2 content**  **Biology –** Topic 7:Ecology  **Chemistry –** Topic 9: Chemistry of the atmosphere, and Topic 10: Using resources  **Physics –** Topic 5: Waves (Electromagnetic waves), Topic 7: Magnetism and electromagnetism, and Topic 8: Space physics (separate sciences only)  **SPRING MOCKS: Paper 2 content** (combined or separate science content, dependent on set)  Bio – Topics 5-7, Chem – Topics 6-10, Phys – Topics 5-7 (combined) or Topics 5-8 (separate) | Maths – throughout all topics.  Geography – links to sustainability.  RE – The Big Bang Theory. |
| Cycle 3 | **Paper 2 content**  **Biology –** Topic 5:Homeostasis and response  **Chemistry –** Topic 6: The rate and extent of chemical change  **Physics –** Topic 5: Forces pt.1  **END OF YEAR 10 MOCKS: Paper 1 (combined sciences) content**  Bio – Topics 1-4, Chem – Topics 1-5, Phys – Topics 1-4 | Maths – throughout all topics. Using equations. Interpreting and drawing graphs.  RSE – Health, human reproduction and contraception. | **Consolidate and revise**  Papers 1 & 2 – identify areas to improve, revision, exam technique  **GCSE exams:**  **Combined science:**  2x 1h 15 min paper/science  **Separate sciences:**  2x 1h 45 min paper/science |  |