**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 1-4Chem – Topics 1-5Phys – 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 fitnessRSE – 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 |  |