Combined Science Legacy – Y11 2025-025

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Curriculum Intent: To ensure students maintain and develop their curiosity and excitement about the natural world. To develop all to be `scientists` by embedding a culture of confidence and mastery underpinned by scientific enquiry. To develop their ability to see connections between science subject areas and become aware of some of the big ideas for understanding the world. To provide a high challenge, high quality Science education for all our learners.

Core Knowledge	Procedural Knowledge
Topics: **Biology** The environment, Feeding humans and disease. **Chemistry** Monitoring and controlling reactions, Organic chemistry including oil, Earth systems **Physics** Power and efficiency, Powering the Earth, work done and Physics on the move	**Students will:** Use scientific theories and explanations to develop hypotheses. Evaluate methods and suggest possible improvements. Apply a knowledge of sampling techniques to ensure any samples collected are representative. Apply a knowledge of a range of techniques, apparatus and materials to select those appropriate for both field work and for experiments. Translate data from one form to another. Represent distributions of results and make estimates of uncertainty. Carry out and represent mathematical and statistical analysis. Explain everyday technological applications of science. Use a variety of concepts and models to develop scientific explanations. Appreciate the power of limitations of science and consider ethical issues.

Homework: One homework will be set for every four hours of learning and take approximately 45 minutes to complete. There will be a variety of homework tasks which could include revision for assessments, recap, and review of core learning, Kerboodle quizzes, past paper questions, A4P tasks etc.

Assessment:
In Y11 there will continue to be end of unit tests
There are also six INOVA exams (two in Biology and two in Chemistry and two in Physics).
The October exams will cover B1, B2, B3 and C1, C2, C3 and P1, P2, P3.
In February the exams will cover B4, B5, B6 and C4, C5, C6 and P4, P5, P6.

Links to Personal Development:
Enabling students to recognise risks to their own wellbeing.
Social development: Practise using a range of social skills in different situations. Confidence, Resilience & Knowledge: Mentally healthy, physically healthy, active lifestyle, healthy relationships.

How is my knowledge developed further at Key Stage Five?
Knowledge and skills gained through the Combined Science course are a starting point for further study at KS5. The GCSE Combined Science course builds on the core concepts learnt at KS3, adding the level of detail and complexity required to access KS5 study.