



Year 11 Combined Science TRILOGY (Physics -AQA)

| | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
|------------|---|---|--------------------------------------|---------------------------------------|--|------------|
| Topics | Waves Transverse & longitudinal, wave speed, electromagnetic spectrum, waves at boundaries, | Magnetism and electromagnetism Magnetic fields, electromagnets, current & magnetism, the motor effect | Re-teaching of prior content from Y9 | Re-teaching of prior content from Y10 | Exam skill and prior knowledge development | |
| Assessment | End of topic assessments | End of topic assessments PPE Paper 1 | PPE paper 2 | PPE Paper 2 | GCSE exams | GCSE exams |

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| Building on Prior Learning | Pupils will have knowledge of the fundamental concepts in Physics including, electricity, energy and atomic structure. They will be able to identify variables, understand the requirements to collect valid data experimentally and analyse results. Learning components at the start of lessons remind student of prior learning and point out links to previous topics. |
| Links with other subjects | There are strong links with Biology, Chemistry, Maths, English D & T and Geography. Maths skills of algebra, graphical analysis, percentages and geometry are used frequently. Physics requires an extensive subject specific vocabulary and shares a common use of terminology with Biology and Chemistry. |
| Extracurricular opportunities | Science revision sessions run every week after school to consolidate, develop and extend learning. Students are encouraged to participate in House competitions throughout the year. Developing STEM ambassador visits to engage and inspire students. |
| A successful learner in this subject will demonstrate | Successful Science students will be well organised and be able to apply maths and express themselves clearly in writing using subject specific terminology appropriately. Learning from their mistakes, successful students will apply prior learning and organised thought to work through problems, looking to find solutions rather than giving up. |
| Impact on personal development | Science will help students to become logical thinkers and problems solvers, with a better understanding the world around them demonstrating resilience and the ability to consider moral and ethical implications of scientific developments. |

| Ways to support student learning in this subject |
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| <ul style="list-style-type: none"> • Encourage the completion of homework • Encourage discussions of science issues that arise in the news • Discuss science lessons and their progress • Encourage a positive attitude towards science • Equations sheet and personalised learning checklists (PLC) • Encourage students to use Seneca Learning (https://www.senecalearning.com/) to consolidate knowledge and build on recall skills. • Use of low stakes questioning and exam material to build confidence and knowledge base • Solid grounding in units, unit conversions, standard form and rearranging equations and encouragement in the use of maths skills • CGP Combined science revision guides and workbooks available through ParentPay during the year. |