Science

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Key Stage Three Leader: Dr A Naylor anaylor@taptonschool.co.uk

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 and to provide a high challenge, high quality science education for all our learners

	Core Knowledge	Procedural Knowledge
Autumn	**Topics:** Work like a Scientist - practical skills. Biology: Health and lifestyle and biological processes. Chemistry: The Periodic table. Physics: Electricity and magnetism.	**Students will:** Select, plan, and carry out the most appropriate scientific enquiries to test predictions. Identify independent, dependent and control variables. Use appropriate techniques, apparatus and materials during field work and lab work, paying attention to health and safety. Pay attention to objectivity and concern for accuracy, precision, repeatability, reproducibility. Explain data in relation to predictions and hypotheses. Understand that scientific theories are modified to take account of new evidence. Understand importance of publishing results and peer review.
Spring	**Topics:** Biology: Ecosystems and adaptation. Chemistry: Separation techniques. Physics: Energy.	**Students will:** Select, plan, and carry out the most appropriate scientific enquiries to test predictions. Identify independent, dependent and control variables. Use appropriate techniques, apparatus and materials during field work and lab work, paying attention to health and safety. Pay attention to objectivity and concern for accuracy, precision, repeatability, reproducibility. Explain data in relation to predictions and hypotheses. Understand that scientific theories are modified to take account of new evidence. Understand importance of publishing results and peer review.

Summer	**Topics:** Biology: Inheritance. Chemistry: Metals and other materials and the Earth. Physics: Motion and Pressure	**Students will:** Select, plan, and carry out the most appropriate scientific enquiries to test predictions. Identify independent, dependent and control variables. Use appropriate techniques, apparatus and materials during field work and lab work, paying attention to health and safety. Pay attention to objectivity and concern for accuracy, precision, repeatability, reproducibility. Explain data in relation to predictions and hypotheses. Understand that scientific theories are modified to take account of new evidence. Understand importance of publishing results and peer review.

Homework:
Students will receive homework for every six hours that they are taught.
Their homework tasks will be set on Satchel:One.
Homework will comprise of a variety of tasks that complement the learning in class.

Assessment:
To assess learning students will also have in class End of Unit assessments throughout the year
There will be two more formal assessments.
Autumn Term: TSAT exam on health and lifestyle and the Periodic table.
Summer Term: TSAT exam on all content covered in Y8.

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 and Knowledge: Mentally healthy, physically healthy, active lifestyle, healthy relationships.

How is my knowledge further developed in Year 9?
Students will build upon the scientific principles learnt in both Year 8 and at KS2, as well as covering brand new content in all three sciences in more detail. Practical skills will be refined as more experiments are carried out and written up in a scientific format. There will be a focus on exam technique and students will regularly receive feedback after assessments.