Science

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Key Stage 3 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: Cells Chemistry: Particle theory Physics: Forces	**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: Structure and function of body systems. Chemistry: Elements, compounds and mixtures and reactions. Physics: Sound.	**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: Reproduction. Chemistry: Acids and alkalis. Physics: Light and space.	**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 Glossary Tasks and Knowledge Organisers relating to the topics of study

Assessment:
Students will have a Baseline assessment on KS2 knowledge
To assess learning students will also have in class End of unit assessments throughout the year
There will be two more formal assessments
Spring Term: TSAT exam on cells, particles and forces.
Summer Term: TSAT exam on all content covered in Y7

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 8?
Students will build upon the scientific principles learnt in Year 7 and at KS2, as well as covering brand new content in all three sciences. 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.