



Curriculum Overview

Subject: Science

Year: 8

Rationale: Building upon skills and knowledge from Year 7 to further develop their understanding and appreciation for Science.

Units of Work		Key Knowledge development:	Key Skills development:	Assessment
1	Practical Skills	<ul style="list-style-type: none"> Wave structure, types, properties & speed (inc. sound & light) Contact & non contact forces, including calculations and diagrams Respiration & photosynthesis Structure & development of the PT Elements, mixtures, compounds Methods of thermal energy transfer Intro to specific heat capacity Types of chemical reactions Exothermic & endothermic reactions Types and cause of variation Inheritance patterns (including punnet squares) How Earth's atmosphere has changed Scalar and vector; speed & acceleration 	<ul style="list-style-type: none"> Writing a detailed scientific plan, identifying all types of variables Writing a risk assessment Producing a results table Collecting accurate data in the classroom and in the field Graph drawing (bar chart and line graph) Identifying trends mathematically Identifying errors & how to minimise Commenting on precision & accuracy 	<p>Each topic to have 2 forms of assessment. 1 to always be an end of topic test. The other will be 1 of:</p> <ul style="list-style-type: none"> Extended writing Practical skill <ul style="list-style-type: none"> Plan Carrying out & collecting data Analysing and interpreting Concluding & Evaluating <p>Mid Year & End of Year exams</p>
2	Siemens Project – waves; EM spectrum			
3	ENERGY & MOTION – Forces; Energy transfers and Efficiency			
4	ORGANISMS – bioenergetics; variation & inheritance			
5	REACTIONS – PT, chemical and energy changes; metals and non metals			
6	OUR PLANET – Climate & Earth's resources			

SMSC/British Values/Careers:

- Ethics & morals in variation & inheritance topic
- Evolution v creationism
- Environmental impacts
- 1st lesson of each topic to be linked to careers
- Careers Fayre in term 6

Literacy/Numeracy:

- Subject specific key words & glossary
- Command words
- EW assessments
- Graph skills
- Equations

Curriculum enrichment:

- Waves project in term 2
- Guest speakers
- Crest drop down day
- Science week

