



Curriculum Overview

Subject: Science

Year: 9

Rationale: Providing students with a transition year to support them progress from ks3 –ks4, offering a grounding in some Y11 concepts that have historically proven more challenging for learners. Through doing this it enables us to go in to the topics in more detail (rather than being restricted by the exam specification). Some builds upon work covered in Y8, providing an opportunity for interleaving. Students embark upon their GCSE after February half term.

Units of Work		Key Knowledge development:	Key Skills development:	Assessment
1	Homeostasis Ecology	<ul style="list-style-type: none"> Nervous & hormonal control Diabetes Fertility & pregnancy Adaptation & competition Carbon cycle Collision theory Effect of temperature, catalysts, surface area & concentration on rate and linked to industry Identifying organic molecules and outlining their properties Identifying features and properties of magnets and electromagnets. Properties and applications of different parts of the EMS 	<ul style="list-style-type: none"> Writing a detailed scientific plan, identifying all types of variables and their ranges Writing a detailed risk assessment Producing a results table with headers & units Collecting accurate data Graph drawing (bar chart and line graph) Identifying trends mathematically Identifying all types of errors & how to minimise Commenting on precision & accuracy and linking to method 	<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 (RP) <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	Rates of reactions Organic Chemistry			
3	Magnets & Electromagnets The Electromagnetic Spectrum			
4	GCSE – B1 Cells			
5	GCSE – C1 Atoms			
6	GCSE – P1 Energy			
SMSC/British Values/Careers: <ul style="list-style-type: none"> Human impact on the environment Ethics & morals of IVF Stem cell treatment of diabetes EMS – phones & communication Organic chemistry & polymers/plastics & link with sustainability 		Literacy/Numeracy: <ul style="list-style-type: none"> Subject specific key words & glossary Command words EW assessments Graph skills Equations 	Curriculum enrichment: <ul style="list-style-type: none"> Y9 Science careers fayre (term 6) Cheltenham Science Festival Science Week 	

