

Culcheth High School Key Stage 3 Curriculum Map 2020- 2021

Science Year 8 Long Term Plan 2019-2020

25% Working Scientifically; 25% Biology, 25% Physics, and 25% Chemistry



	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
Key Concepts	Biology	Physics	Chemistry	Biology	Chemistry	Physics
Themes	Breathing, respiration, drugs, smoking, fermentation alcohol, and photosynthesis.	Reflection, refraction and the eye. Convection, conduction and radiation, magnets and electromagnets, static electricity.	Acids, Alkalis and reactions of metals and the reactivity series	The skeletal & muscular systems and reproduction in humans. Recap of Ecology (from home learning) – plants reproduction, food chains, webs, competition and variation.	Types of chemical reactions, carbon cycle, climate change, fuels and alternative fuels investigation, recycling and the atmosphere.	Work done, Hookes law, pressure, pressure and depth, and momentum.
Writing Whole school literacy focus	<p>Scientific writing:</p> <ul style="list-style-type: none"> • Writing a plan, presenting findings, drawing a conclusion and evaluating a method • Spelling and using scientific vocabulary in the correct context • Understanding the different Prefixes and Suffixes of scientific vocabulary • Use of capital letters and full stops <p>This is broken down in the following way:</p> <p>Experimental skills and investigations</p> <ul style="list-style-type: none"> • ask questions and develop a line of enquiry based on observations of the real world, alongside prior knowledge and experience • make predictions using scientific knowledge and understanding • make and record observations and measurements using a range of methods for different investigations; and evaluate the reliability of methods and suggest possible improvements <p>Analysis and evaluation</p> <ul style="list-style-type: none"> • apply mathematical concepts and calculate results • present observations and data using appropriate methods, including tables and graphs • interpret observations and data, including identifying patterns and using observations, measurements and data to draw conclusions • present reasoned explanations, including explaining data in relation to predictions and hypotheses 					

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	<ul style="list-style-type: none"> • evaluate data, showing awareness of potential sources of random and systematic error • identify further questions arising from their results <p>Measurement</p> <ul style="list-style-type: none"> • understand and use SI units and IUPAC (International Union of Pure and Applied Chemistry) chemical nomenclature • Use simple equations to represent reactions 					
Spiritual, Moral, Social and Cultural theme (SMSC) Fundamental British Values	Social and cultural – The role of, and current laws on drugs, smoking and alcohol will be explored as well as the physical, social and economic impact of their consumption and usage in UK society today	Social and cultural – how scientific ideas and evidence have changed people’s beliefs over time are discussed.	Moral and social – how developments in technology have changed people life e.g. different types of hearing aids and how they work.	Spiritual & Social through discussions surrounding the reproduction topic in particular pregnancy and birth. Through discussion surrounding plant reproduction and food security Moral – pupils will look at the ethics of selective breeding.	Social – environmental issues such as global warming, alternative energies are explored with investigations into their effects.	Social and cultural – how scientific ideas and evidence have changed people’s beliefs over time are discussed.
Key Assessment Focuses, Suggested Assessments and Feedback Week	Biology 1 QMA Skills sheets See QMA calendar	Physics 1 QMA Skills Sheets See QMA calendar	Chemistry 1 QMA Skills sheets See QMA calendar	Biology 2 QMA (Topic 2 and Topic 1 recap assessment) Skills sheets See QMA calendar	End of year assessment. Covers all work to-date (Chemistry and biology 1&2 and physics 1). This will be the last assessment to be reported home this year. Skills sheets See QMA Calendar	Physics 2 QMA (Topic 2 and Topic 1 recap assessment). This will be reported home in September. Skills Sheets See QMA Calendar
<p>After each QMA, pupils will have an opportunity to improve their answers and correct them with red pen. Skills sheets will be code marked by referring to success criteria. 2 stars and a wish will also be given as feedback. Pupils will respond in red pen.</p>						

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Special Events		Moon Watch 12th November		National Science and Engineering Week		
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