

Culcheth High School Key Stage 3 Curriculum Map 2020 - 2021

Science Year 7 Long Term Plan

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	Physics	Biology	Chemistry	Biology	Chemistry	Physics
Themes	Forces, speed, sound waves and the ear.	Cells, microscopes, nutrition, energy in food and the digestive system.	Particle theory in solids, liquids and gases, elements and the periodic table, metals and non-metals.	The skeletal & muscular systems and reproduction in humans.	Mixtures and compounds, separation techniques and mass in reactions.	Energy stores, kinetic theory and changes of state, circuits – series, parallel and power. Space topic – days, years, solar system, the universe
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 • evaluate data, showing awareness of potential sources of random and systematic error 					

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	<ul style="list-style-type: none"> 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 – how scientific ideas and evidence have changed people’s beliefs over time are discussed.	Social and cultural – ideas about nutrition and food have changed are discussed and the nutrients in food investigated.	Moral and social – how developments in technology have changed people’s lives e.g. different types of hearing aids.	Social and cultural – how technologies and ideas have changed the processes used in society e.g. filtration.	Spiritual & Social through discussions surrounding the reproduction topic in particular pregnancy and birth	Spiritual – pupils will explore space and reflect on the extent and nature of the universe and relationship to it.
Key Assessment Focuses, Suggested Assessments and Feedback Week	Physics 1 QMA Skills Sheets See QMA Calendar	Biology 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
	After each QMA, Pupils will have an opportunity to improve their answers and correct them with a 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.					
Special Events		Moon Watch 12th November		National Science and Engineering Week		