



Long-term Plan for [Subject]

2016-2017

Subject Leader: [J.Oppong]

[Title of unit and length in weeks][Main focus][WS- Assessment focus][Other assessment focus] [Cultural link to the world of work]

YR [8]	First half of term	Second half of term
Autumn	<p>Biology – Material cycle and energy Photosynthesis The adaptations of leaves for photosynthesis Adaptation and survival of Habitats WS – photosynthesis poster/model and presentation Hunters choice activity ILA – Photosynthesis End of topic test</p> <p>Chemistry – Materials Acids and Alkali (Recap) Defining acids and alkalis in terms of neutralization reactions The pH scale for measuring acidity/alkalinity; and indicators Reactions of acids with metals to produce a salt plus hydrogen Reactions of acids with alkalis to produce a salt plus water Metal reaction with acids WS - Select, plan, and carry out the most appropriate types of scientific enquiries to test predictions, including identifying independent, dependent, and control variables, where appropriate Visit to L’Oréal Young scientist centre</p>	<p>Chemistry – Chemical Reactions /Marvellous Metal Uses of metals Reactivity Series Oxidation, thermal decomposition, displacement reactions. Energy Changes in reactions WS: record data, present findings with tables & line graphs reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations End of topic test (Acid and Alkali & Marvellous metal)</p> <p>Biology – Material cycle and energy- (Cellular Respiration) Aerobic and anaerobic respiration WS -Identify reactants and products in word equations. - Write word equations to represent chemical reactions. - Represent practical observations using word equations. End of topic test (Respiration)</p>



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Spring	Physics – Energy changes and transfer.	Physics – Energy and Electricity	Chemistry Energetics	Physics – Forces and Motion
	Calculation of fuel uses and costs in the domestic context Heat Transfer Comparing energy values of different foods, power ratings of appliances in watts, amounts of energy transferred. WS - Interpret observations and data, including identifying patterns and using observations, measurements, and data to draw conclusions.	Generating and using electrical energy WS – Design a model that shows and explains how we can generate electricity -Calculate energy used End of topic test	Exothermic reaction Endothermic reactions WS -Identify reactants and products in word equations. - Write word and symbol equations to represent chemical reactions. - Represent practical observations using word equations. End of topic test Big Bang exhibition at Birmingham	Speed Pressure Balancing Forces WS - Plan & carry out investigation accuracy, Take measurements & draw conclusions from repeated measurements End of topic test



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Summer	Physics – Waves and Sound	Biology – Health		Biology – Interactions and Interdependent
	<p>Sound waves and Energy Transfer</p> <p>Loudness and Pitch</p> <p>Detecting Sound</p> <p>Echoes and Ultra sounds</p> <p>WS - Interpret observations and data, including identifying patterns and using observations, measurements, and data to draw conclusions.</p> <p>End of topic test</p>	<p>Healthy Living alcohol/ drugs</p> <p>Microbes and their related diseases</p> <p>WS- Draw conclusions from observations and data. Suggest explanations for conclusions, using scientific knowledge and understanding.</p> <p>Revision KS3 Science</p>	<p>End of KS3 Assessment</p> <p>Science fair Project</p> <p>SATS paper x2 to get a final end of KS3 grade</p>	<p>Relationships in an Ecosystem</p> <p>. Transition Project – TBC with Upper School</p>