



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 [7]	First half of term		Second half of term	
Autumn	Working Scientifically	Biology - Cells, tissues and organs	Chemistry -Particles in action	Chemistry - elements and compounds
	<p>Cells, Tissues and Organs Microscopes Plant and animal cells Specialised cells Unicellular Organism</p> <p>WS – - Interpret observations and data, including identifying patterns and using observations, measurements, and data to draw conclusions.</p>	<p>Musculoskeletal system</p> <p>WS-Make sound scientific arguments based on known facts not on assumptions.</p> <p>End of topic test practical & Theory</p>	<p>Solids, liquids and gases in terms Particle models</p> <p>Investigating Solubility at Different Temperatures</p> <p>Investigate changes in temperature during changes of state (boiling, melting ice/ cooling stearic acid/ heating chocolate)</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>Mixtures Separation methods The concept of a pure substance</p> <p>mixtures, including dissolving diffusion in terms of the particle model</p> <p>simple techniques for separating mixtures: filtration, evaporation, distillation and chromatography</p> <p>The identification of pure substances.</p> <p>End of topic test</p>



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Spring	Biology - Body Systems	Biology - Body Systems	Chemistry – Atoms, Elements and Compounds	Chemistry - elements and compounds
	Digestion Respiration WS – Investigate the effect of temperature on the breakdown of starch by amylase WS-Make sound scientific arguments based on known facts not on assumptions.	Respiration continued Body system end of topic test WS – Effect of temperature and glucose concentration on yeast WS – Making and testing red cabbage indicator	- Differences between atoms, elements, and compounds. - A simple (Dalton) atomic model. Differences between atoms, elements, and compounds. - Chemical symbols and formulae for elements and compounds. WS – Investigation of the periodic table <u>WS</u> - Understand and use SI units and IUPAC (International Union of Pure and Applied Chemistry) chemical nomenclature. Unilever Science Day	Balancing Simple Chemical Reaction 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



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Summer	Biology-Reproduction	Chemistry – what is happening around us	Physics - light and space	Physics - light and space
	Reproduction in Animals Reproduction in Plants End of topic test	Reactions Acids and Alkalis WS – Investigating Indigestion tablets <u>WS</u> - Evaluate risks. - Select, plan, and carry out the most appropriate types of scientific enquiries to test predictions, including identifying independent, dependent, and control variables, where appropriate	Light- reflection - The transmission of light through materials: absorption, diffuse scattering, and specular reflection at a surface. - Use of ray model to explain imaging in mirrors. - Differential colour effects in absorption and diffuse reflection. Light-Refraction - The refraction of light and action of convex lens in focusing (qualitative); the human eye. <u>WS</u> - Use appropriate techniques, apparatus, and materials during fieldwork and laboratory work, paying attention to health and safety. Circuits End of topic test	Light transferring energy from source to absorber leading to chemical and electrical effects; photo-sensitive material in the retina and in cameras. - Use of ray model to explain the pinhole camera. Solar System WS – Solar system project/presentations <u>WS</u> - Interpret observations and data, including identifying patterns and using observations, measurements, and data to draw conclusions. End of topic test End of year test on all topics covered in year 7 – SATS based