

St Thomas's Centre  
KS3 Science Long Term Plan



	Autumn term		Spring Term		Summer Term	
HALF TERM	1	2	3	4	5	6
Cycle 1	<p>Enquiry processes</p> <p><b>Forces</b></p> <p>Introduction to forces</p> <p>Balanced and unbalanced</p> <p>Speed</p> <p>Distance - time graphs</p> <p>Gravity</p> <p><b>Organisms part 1</b></p> <p>Observing cells</p> <p>Plant and animal cells</p> <p>Specialised cells</p> <p>Movement of substances</p> <p>Uni-cellular organisms</p>	<p><b>Organism's part 2</b></p> <p>Movement</p> <p>Levels of organisation</p> <p>The Skeleton</p> <p>Movement: joints</p> <p>Movement: muscles</p> <p><b>Matter part 1</b></p> <p>The particle models.</p> <p>States of matter.</p> <p>Melting and freezing.</p> <p>Boiling.</p> <p>More changes of state.</p> <p>Diffusion.</p> <p>Gas pressure.</p> <p>Inside particles.</p>	<p><b>Matter part 2</b></p> <p>Pure substances and mixtures.</p> <p>Solutions</p> <p>Solubility</p> <p>Filtration</p> <p>Evaporation and distillation.</p> <p>Chromatography.</p> <p><b>Reaction's part 1</b></p> <p>Chemical reactions</p> <p>Acids and Alkalis</p> <p>Indicators and pH</p> <p>Acid Strength</p> <p>Neutralisation</p> <p>Making Salts</p> <p><b>Electromagnets</b></p> <p>Potential difference</p> <p>Resistance</p> <p>Series and parallel circuits</p> <p>Current</p> <p>Charging up.</p>	<p><b>Genes</b></p> <p>Variation</p> <p>Continuous and discontinuous</p> <p>Adapting to change</p> <p>Adolescence</p> <p>Reproductive systems</p> <p>Fertilisation and implantation</p> <p>Development of a foetus</p> <p>The menstrual cycle.</p> <p><b>Reactions part 2</b></p> <p>More about elements</p> <p>Chemical reactions of metals and non-metals.</p> <p>Metals and acids</p> <p>Metals and oxygen</p> <p>Metals and water</p> <p>Metal displacement reactions.</p>	<p><b>Earth</b></p> <p>The structure of the earth.</p> <p>Sedimentary rocks</p> <p>Igneous and metamorphic rocks</p> <p>The rock cycle.</p> <p>Ceramics</p> <p>The night sky</p> <p>The solar system</p> <p>The Earth</p> <p>The Moon and changing ideas.</p> <p><b>Energy</b></p> <p>Food and fuels</p> <p>Energy resources</p> <p>Energy and power</p> <p>Energy adds up</p> <p>Energy dissipation</p>	<p><b>Ecosystem</b></p> <p>Food chains and webs</p> <p>Disruption to food chains and webs</p> <p>Ecosystems</p> <p>Competition</p> <p>Flowers and pollination</p> <p>Fertilisation and germination</p> <p>Seed dispersal</p> <p><b>Waves</b></p> <p>Sound waves and speed</p> <p>Loudness and amplitude</p> <p>Frequency and pitch</p> <p>The ear and hearing</p> <p>Light</p> <p>Reflection</p> <p>Refraction</p> <p>The eye and vision</p> <p>Colour</p>

Physics content Biology content Chemistry content

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HALF TERM	1	2	3	4	5	6
Cycle 2	<b>Enquiry Processes</b>  <b>Forces</b> Friction and Drag Squashing and Stretching Turning forces Pressure in gases Pressure in liquids Pressure on solids	<b>Organisms</b> Gas Exchange Breathing Drugs Alcohol Smoking Nutrients Food Tests Unhealthy diet Digestive system Bacteria and enzymes in digestion  <b>Matter part 1</b> Elements Atoms Compounds Chemical formulae Polymers	<b>Matter part 2</b> The periodic table The elements in group 1 The elements in group 7 The elements in group 0 Atoms in chemical reactions <b>Electromagnets</b> Magnets and magnetic fields Electromagnets Using Electromagnets <b>Reaction's part 1</b> Combustion Thermal decomposition Conservation of mass.	<b>Reaction's part 2</b> Exothermic and endothermic Energy level diagrams Bond energies. <b>Genes</b> Natural selection Charles Darwin Extinction Preserving biodiversity Inheritance DNA Genetics Genetic modification	<b>Earth</b> Global warming The carbon cycle Climate change Extracting metals Recycling <b>Energy</b> Work, energy and machines Energy and temperature Energy transfer: particles Energy transfer: radiation and insulation	<b>Ecosystem</b> Aerobic respiration Anaerobic respiration Biotechnology. Photosynthesis Leaves Investigating photosynthesis Plant minerals. <b>Waves</b> Sound waves, water waves, and energy Radiation and energy Modelling waves.

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