

## Subject: Science

Week Beginning	Topics
11 <sup>th</sup> March	<p><b>Biology:</b> The Nervous system, The Endocrine system, Homeostasis</p> <p><b>Chemistry:</b> Separation techniques &amp; chromatography, Separate only - analysis &amp; ion testing, elements, mixtures &amp; compounds, <b>Separate only - titration</b></p> <p><b>Physics:</b> Particle model: Solids/liquids/Gases, Changes of state, Pressure from a gas, : Energy: Energy stores and transfers, Specific heat capacity, Latent heat , <b>Pressure in a fluid (sep only)</b></p>
18 <sup>th</sup> March	<p><b>Biology:</b> Pathogens, medical testing, cancer, Photosynthesis, Respiration, Transpiration</p> <p><b>Chemistry:</b> Bonding (ionic, simple covalent, giant covalent, metallic), Atom, electron configuration, history of the atom</p> <p><b>Separate only - Nanoparticles</b></p> <p><b>Physics:</b> Atomic &amp; nuclear: Structure of atom, History of atom, Radioactive decay, Nuclear decay equations, Half life, <b>Fission &amp; fusion (sep only)</b></p>
25 <sup>th</sup> March	<p><b>Biology:</b> Diffusion, Osmosis, Active transport, Cells, Tissues, Organs and organ systems</p> <p><b>Chemistry:</b> Changes in Earth's atmosphere, LCA &amp; sustainability, Greenhouse effect, Pollutants</p> <p><b>Physics:</b> Forces: Speed &amp; acceleration dist-time/velocity-time graphs, Resultant forces, Electricity: Series &amp; parallel circuits, Electricity in the home, National grid, <b>Transformers (HT only)</b>, <b>Loudspeakers/generator effect (sep only)</b></p>
1 <sup>st</sup> April	<p><b>Biology:</b> The Digestive system Enzymes, food tests</p> <p><b>Chemistry:</b> Rate of reaction (SA, concentration, temperature &amp; catalyst), energy changes in a reaction (exothermic &amp; endothermic), reaction profiles</p> <p><b>Physics:</b> Forces (cont): <math>F=ma</math>, Newton's laws of motion, Hooke's law/springs, <b>Momentum (HT only)</b></p>
8 <sup>th</sup> April	<p><b>Biology:</b> The Respiratory system, The Circulatory system, Body systems</p> <p><b>Chemistry:</b> Reactions of metals, Neutralisation (<b>Strong &amp; weak acids - higher tier only</b>), Making a soluble salt, Development of the Periodic Table, groups of the Periodic table (1, 7 &amp; 0 <b>[transition metals separate only]</b>), Gas tests</p> <p><b>Physics:</b> Waves: Transverse &amp; longitudinal, Reflection &amp; refraction, Electromagnetic spectrum (order, uses, dangers, similarities)</p>
15 <sup>th</sup> April	<p><b>Biology:</b> Ecosystems, Abiotic/Biotic, Deforestation and Peat bogs</p> <p><b>Chemistry:</b> Electrolysis, <i>ionic equations - Higher only</i></p> <p><b>Fuel cells - separate only</b></p> <p><b>Physics:</b> Electromagnetism: Magnets and magnetic fields, Electromagnets, Fleming's left hand rule &amp; <math>F = BIL</math> (<b>HT only</b>)</p>
22 <sup>nd</sup> April	<p><b>Biology:</b> Alleles, Genes and DNA, Selective breeding, Genetic Engineering</p> <p><b>Chemistry:</b> Extracting metals (<b>Higher only - phytomining &amp; bioleaching</b>), crude oil &amp; Fractional distillation, Cracking, <b>Separate only: reactions of alkenes, polymerisation, preventing corrosion</b></p> <p><b>Physics:</b> <b>Separates only: Space, Solar system &amp; orbits, Life cycle of a star, Red shift</b></p>
29 <sup>th</sup> April	<p><b>Biology:</b> Fossils and extinction, Evolution, Classification#</p> <p><b>Chemistry:</b> Equilibrium &amp; reversible reactions, Water (waste &amp; potable), <b>separates only: ceramics, composites &amp; alloys, alcohols, esters &amp; carboxylic acids</b></p> <p><b>Physics:</b> All: Identify areas of weakness from above and go over again</p>