# Bellerive FCJ Catholic College

**Department: Science** **Year Group: 9**

| Term | Learning Focus | Key Knowledge and Skills | Assessment | Challenge and Enrichment |
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| 1 | The Earth | Structure of the Earth and plate tectonics<br>Weathering and sedimentary rocks<br>Igneous & metamorphic rocks<br>The rock cycle<br>The Earth's atmosphere and the carbon cycle<br>Global warming and climate change | End of unit and end of year assessment. | KS3 padlet<br>https://padlet.com/herseyd3/ks3-revision-6geryfp6snzekiyq |
| | Reactions | Chemical reactions<br>Word and symbol equations<br>Oxidation reactions<br>Decomposition reactions<br>Conservation of mass<br>Exothermic and endothermic<br>Catalysts | | |
| | Inheritance | Variation<br>Continuous and discontinuous<br>Inheritance<br>Natural selection and extinction | | |
| | Ecosystems and Adaptations | Food chains and webs<br>Ecosystems Disruption to food chains, food webs and Ecosystems<br>Competition<br>Adapting to change | | |
| | Metals and Materials | Metals with acids<br>Metals with oxygen<br>Reactivity series | | |

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| | | Displacement reactions<br>Metal extraction<br>Ceramics, polymers and composites 1<br>Ceramics, polymers and composites 2 | | |
| | Electric circuits and Magnetism | Series circuits<br>Parallel circuits<br>Magnets and magnetic fields<br>Electromagnets | | |
| | Light | Light<br>Reflection and refraction<br>The eye and the camera<br>Colour | | |
| | Space | The night sky<br>The solar system<br>Day and Night<br>The moon | | |
| | Pressure and Turning Forces | Pressure on a solid<br>Pressure in a liquid and gas<br>Turning forces | | |
| | Heating and Cooling | Energy and temperature<br>Energy transfer: Particles<br>Energy transfer: radiation | | |
| 2 | Energy | Energy Stores<br>Energy transfers<br>Energy resources<br>Conservation and dissipation<br>Work and power<br>Reach: Efficiency<br>Reach: Elastic energy and Hooke's law | End of unit and end of year assessment. | KS3 padlet<br>https://padlet.com/herseyd3/ks3-revision-6geryfp6snzekiyq |
| | Particle model and states of matter | The particle model<br>Substances | | |

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| | | States of matter<br>Sublimation: a change of state | | |
| | Cell Systems | Plant and animal cells<br>Cell specialisation<br>Respiration<br>Diffusion<br>Prokaryotic cells<br>Active Transport | | |
| 3 | Electricity and magnetism | Static electricity and charge<br>Current, P.D and resistance<br>Series and parallel<br>Magnetism<br>Electromagnetism and induction<br>AC and the National Grid | End of unit and end of year assessment. | KS3 padlet<br>https://padlet.com/herseyd3/ks3-revision-6geryfp6snzekiyq |
| | Forces and motion | Forces and interactions<br>Mass, weight and fields<br>Speed and distance -time graphs<br>Balanced and unbalanced<br>Resultant forces<br>Acceleration and speed-time graphs | | |
| | Chemical Changes | Chemical and Physical changes<br>Reactants and products<br>Writing chemical equations<br>Conservation of mass<br>Energy in chemical changes | | |
| | Fertilisation | Sexual Reproduction<br>Preventing Pregnancy<br>Menstrual cycle<br>Investigating seed dispersal<br>Inheriting characteristics<br>Asexual reproduction | | |

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| | Useful chemical reactions | Using metals<br>The Reactivity series<br>Displacement reactions<br>Extracting metals | | |