

**Triple Science Subject Academic Curriculum Overview**

Year	<i>Term - Content</i>						<i>Transition Milestones</i>
	Sept – Oct	Oct- Dec	Jan-Feb	Feb-Mar	April – May	June-July	By the end of the year students will have learned to apply the following skills through the content studied.....
<b>9</b>	Physics- Density +required practical Kinetic theory Biology – Cell structure and the microscope. Required practical microscopes.  Chemistry – Atomic structure	Physics: Specific Latent heat Specific heat capacity Gas temperature and pressure Gas pressure and volume Biology – Cell transport including osmosis required practical.  Atomic structure	Physics: Conservation of energy Energy calculations Energy efficiency Biology - Cell division Chemistry – Chemistry – The periodic table	Physics: Heating and insulating buildings and thermal conductivity Energy resources Biology - Organisation in animals and plants including food tests required practical Chemistry – structure and bonding	Physics : Types of radioactivity Half life Discovery of the nucleus Decay equations Medical uses Biology - Organisation in animals and plants including enzymes required practical Chemistry – structure and bonding	Physics: Nuclear fission Nuclear fusion Nuclear issues Biology – Organising animals and plants, the heart. Chemistry – structure and bonding	Initial GCSE content following AQA specifications Apparatus and technique skills as covered by the specification Developing the analysis of primary and secondary data. Exam techniques.
<b>10</b>	Physics Static Electricity Current and charge Series and parallel circuits Resistance and components required practicals. Biology – Organising animals and plants, blood, gas exchange and transport systems in plants. Chemistry – chemical calculations titration required practical.	Physics Mains electricity Plugs, fuses and earth wires Energy and charge Power and efficiency Biology – communicable, non-communicable disease and the prevention of disease. Growing bacteria required practical. Chemistry – chemical changes and making salts required practical.	Forces and motion Vectors and scalars Resultant forces Velocity and acceleration Motion graphs Acceleration required practical Biology - photosynthesis and respiration Rate of photosynthesis required practical. Chemistry – Electrolysis and required practical	Physics Moments, levers and gears Centre of mass Weight and mass Hooke’s law required practical Terminal velocity Stopping distances  Biology – nervous system and hormonal control. Adaptation, interdependence and competition. Human reaction time, seedling growth and interdependence required practicals Chemistry – Energy changes temperature changes required practical.	Physics Momentum  Conservation of momentum  Impact forces  Pressure and surfaces  Pressure and liquids  Atmospheric pressure  Up thrust and flotation  Paper 1 retrieval in preparation for the mock exam  Biology – Reproduction, variation and evolution. Chemistry – Rates and equilibrium and required practical (rates.)	Physics Mock exam  Biology - Biodiversity and ecosystems. Decay required practical. Chemistry – Haber .process	Initial GCSE content following AQA specifications Apparatus and technique skills as covered by the specification Developing the analysis of primary and secondary data Exam techniques.

<p><b>11</b></p>	<p>Physics Types of waves Wave equation and calculations Reflection and refraction required practical Wave required practicals Retrieval molecules and matter Biology – DNA, the genome, expression and mutation. Antibiotic resistant bacteria. Chemistry – Crude oil, organic chemistry and polymers Chemistry – Using our resources.</p>	<p>Physics Sound waves/ultrasound interleaved with states of matter for explaining speed Seismic waves Electromagnetic spectrum Biology – DNA, the genome, expression and mutation. Antibiotic resistant bacteria.  Chemistry – chemical analysis and required practicals (Rf values and ID unknown compounds.)</p>	<p>Physics Magnetic fields Electromagnets Motor effect Generator effect Transformers Biology - Adaptation, interdependence and competition. Interdependence required practicals.  Chemistry – The Earth’s atmosphere and resources. Water required practical.</p>	<p>Physics Solar system Life cycle of a star The expanding universe Planets satellites and orbits Biology -  Biodiversity and ecosystems. Decay required practical.  Chemistry – Using our resources.  Chemistry– Using our resources, Haber .process</p>	<p>Revision/ exams Physics – retrieval and revision exam practice   Biology - retrieval practice P1 and 2, exam prep  Chemistry - retrieval practice P1 and 2, exam prep</p>	<p>revision/exams</p>	
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