



# Science - Physics

## Key Stage 4 - Year 10 – Triple Award

Term One	Term Two	Term Three
<b>Waves</b> <ul style="list-style-type: none"> <li>• Electromagnetic spectrum</li> <li>• Radiation</li> <li>• Absorption</li> </ul>	<b>Electricity</b> <ul style="list-style-type: none"> <li>• I - V Characteristics</li> <li>• LED</li> <li>• Diode</li> <li>• LDR</li> <li>• Filament lamp</li> <li>• Ohmic conductors</li> <li>• Energy</li> <li>• Voltage</li> <li>• Charge</li> <li>• Household electricity</li> <li>• Power</li> </ul>	<b>Forces</b> <ul style="list-style-type: none"> <li>• Moments</li> <li>• Gears</li> <li>• Pressure</li> <li>• Upthrust</li> <li>• Atmospheric pressure</li> <li>• Speed</li> <li>• Velocity</li> <li>• Graphs</li> <li>• Acceleration</li> <li>• Equations of uniform acceleration</li> </ul>
<b>Energy</b> <ul style="list-style-type: none"> <li>• Changes in Energy (EP, EK and Conservation of Energy)</li> <li>• Thermal insulation</li> </ul>	<b>Working Scientifically</b> <ul style="list-style-type: none"> <li>• Working scientifically</li> </ul>	
<b>Particle Model of Matter</b> <ul style="list-style-type: none"> <li>• Pressure in gases – <math>pV=K</math></li> </ul>		

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Electricity	Forces	
<ul style="list-style-type: none"><li>• Static electricity</li><li>• Currents and voltages in series and parallel</li><li>• Voltage</li><li>• Current</li><li>• Resistance</li><li>• Charge</li><li>• Investigating resistance</li></ul>	<ul style="list-style-type: none"><li>• Scalars</li><li>• Vectors</li><li>• Resultant forces</li><li>• Components of a vector</li><li>• Work done</li><li>• Hooke's law</li></ul>	



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## Key Stage 4 - Year 11 – Triple Award

Term One	Term Two	Term Three
<b>Forces</b> <ul style="list-style-type: none"><li>• Newton's laws</li><li>• Inertia</li><li>• Terminal velocity</li><li>• Gravity</li><li>• Stopping distances</li><li>• Momentum</li></ul>	<b>Magnesium and Electromagnetism</b> <ul style="list-style-type: none"><li>• Motor effect</li><li>• Electromagnetic induction and Transformers</li></ul>	<b>Exams</b> <ul style="list-style-type: none"><li>• Revision and exams</li></ul>
<b>Waves</b> <ul style="list-style-type: none"><li>• Investigating reflection and refraction</li><li>• Sound</li><li>• Ultrasound</li><li>• Seismic waves</li><li>• Lenses</li><li>• Black body radiation</li></ul>	<b>Atomic Structure</b> <ul style="list-style-type: none"><li>• Structure of the atom</li><li>• Isotopes</li><li>• Development of the model of the atom</li><li>• 3 types of radiation</li><li>• Nuclear equations</li><li>• Half-life</li><li>• Uses and dangers</li><li>• Fission and fusion</li></ul>	

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Magnesium and Electromagnetism	Space	
<ul style="list-style-type: none"><li>• Magnetic fields</li><li>• Electromagnets</li></ul>	<ul style="list-style-type: none"><li>• Solar system</li><li>• Orbital motion</li><li>• Satellites</li><li>• Life cycle of stars</li><li>• Red shift</li><li>• Big Bang</li></ul>	