

## Triple Science Physics

Topic	Done in Class	RAG	Revised	RAG
<b>P1 Energy and energy resources – Paper 1</b>				
Changes in energy stores				
Conservation of energy				
Energy and work				
Gravitational potential energy stores				
Kinetic energy and elastic energy				
Energy dissipation				
Energy and efficiency				
Electrical appliances				
Energy and power				
<b>P2 Energy transfers by heating – Paper 1</b>				
Energy transfer by conduction				
<i>Infrared radiation</i>				
<i>More about infrared radiation HT</i>				
Specific heat capacity				
Heating and insulating buildings				
<b>P3 Energy resources – Paper 1</b>				
Energy demands				
Energy from wind and water				
Power from the Sun and Earth				
Energy and the environment				
Big energy issues				
<b>P4 Electric circuits – Paper 1</b>				
<i>Electrical charges and fields</i>				
Current and charge				
Potential difference and resistance				
Component characteristics				
Series circuits				
Parallel circuits				
<b>P5 Electricity in the home – Paper 1</b>				
Alternating current				
Cables and plugs				
Electrical power and potential difference				
Electrical currents and energy transfer				
Appliances and efficiency				
<b>P6 Molecules and matter – Paper 1</b>				
Density				
States of matter				
Changes of state				
Internal energy				
Specific latent heat				
Gas pressure and temperature				
<i>Gas pressure and volume</i>				

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P7 Radioactivity – Paper 1				
Atoms and radiation				
The discovery of the nucleus				
Changes in the nucleus				
More about alpha, beta and gamma radiation				
Activity and half-life				
<i>Nuclear radiation in medicine</i>				
<i>Nuclear fission</i>				
<i>Nuclear fusion</i>				
<i>Nuclear issues</i>				

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<b>P8 Forces in balance – Paper 2</b>				
Vectors and scalars				
Forces between objects				
Resultant forces				
<i>Moments at work</i>				
<i>More about levers and gears</i>				
Centre of mass				
<i>Moments and equilibrium</i>				
The parallelogram of forces HT				
Resolution of forces HT				
<b>P9 Motion – Paper 2</b>				
Speed and distance-time graphs				
Velocity and acceleration				
More about velocity-time graphs				
Analysing motion graphs				
<b>P10 Force and motion – Paper 2</b>				
Force and acceleration				
Weight and terminal velocity				
Forces and braking				
Momentum HT				
<i>Using conservation of momentum HT</i>				
<i>Impact forces HT</i>				
<i>Safety first HT</i>				
Forces and elasticity				
<b>P11 Force and pressure – Paper 2 TRIPLE ONLY</b>				
<i>Pressure and surfaces</i>				
<i>Pressure in a liquid at rest HT</i>				
<i>Atmospheric pressure</i>				
<i>Upthrust and flotation HT</i>				
<b>P12 Wave properties – Paper 2</b>				
The nature of waves				
The properties of waves				
Reflection and refraction HT				
More about waves				
<i>Sound waves HT</i>				
<i>The uses of ultrasound HT</i>				
<i>Seismic waves HT</i>				
<b>P13 Electromagnetic waves – Paper 2</b>				
The electromagnetic spectrum				
Light, infrared, microwaves and radio waves				
Communication				
Ultraviolet, X-rays and gamma rays				
X-rays in medicine				
<b>P14 Light – Paper 2 TRIPLE ONLY</b>				
<i>Reflection of light</i>				
<i>Refraction of light</i>				
<i>Light and colour</i>				
<i>Lenses</i>				
<i>Using lenses</i>				

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<b>P15 Electromagnetism – Paper 2</b>				
Magnetic fields				
Magnetic fields of electric currents				
<i>Electromagnets in devices</i>				
The motor effect HT				
<i>The generator effect HT</i>				
<i>The alternating-current generator HT</i>				
<i>Transformers HT</i>				
<i>Transformers in action HT</i>				
<b>P16 Space – Paper 2 TRIPLE ONLY</b>				
<i>Formation of the Solar System</i>				
<i>The life history of a star</i>				
<i>Planets, satellites and orbits</i>				
<i>The expanding Universe</i>				
<i>The beginning and future of the Universe</i>				

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Required practicals paper 1				
Specific heat capacity (Energy transfer by heating)				
Thermal insulation (Energy transfer by heating)				
Resistance (Electric circuits)				
I-V characteristics (Electric circuits)				
Density (Molecules and matter)				
Required practicals paper 2				
Force and extension (Force and motion)				
Acceleration (Force and motion)				
Waves (Wave properties)				
<i>Light (Light)</i>				
Radiation and absorption (Electromagnetic waves)				