

Combined Science Physics

Topic	Done in Class	RAG	Revised	RAG
P1 Energy and energy resources – Paper 1				
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				
P2 Energy transfers by heating – Paper 1				
Energy transfer by conduction				
Specific heat capacity				
Heating and insulating buildings				
P3 Energy resources – Paper 1				
Energy demands				
Energy from wind and water				
Power from the Sun and Earth				
Energy and the environment				
Big energy issues				
P4 Electric circuits – Paper 1				
Current and charge				
Potential difference and resistance				
Component characteristics				
Series circuits				
Parallel circuits				
P5 Electricity in the home – Paper 1				
Alternating current				
Cables and plugs				
Electrical power and potential difference				
Electrical currents and energy transfer				
Appliances and efficiency				
P6 Molecules and matter – Paper 1				
Density				
States of matter				
Changes of state				
Internal energy				
Specific latent heat				
Gas pressure and temperature				
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				

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P8 Forces in balance – Paper 2				
Vectors and scalars				
Forces between objects				
Resultant forces				
Centre of mass				
The parallelogram of forces HT				
Resolution of forces HT				
P9 Motion – Paper 2				
Speed and distance-time graphs				
Velocity and acceleration				
More about velocity-time graphs				
Analysing motion graphs				
P10 Force and motion – Paper 2				
Force and acceleration				
Weight and terminal velocity				
Forces and braking				
Momentum HT				
Forces and elasticity				
P11 Force and pressure – Paper 2 TRIPLE ONLY				
P12 Wave properties – Paper 2				
The nature of waves				
The properties of waves				
Reflection and refraction HT				
More about waves				
P13 Electromagnetic waves – Paper 2				
The electromagnetic spectrum				
Light, infrared, microwaves and radio waves				
Communication				
Ultraviolet, X-rays and gamma rays				
X-rays in medicine				
P14 Light – Paper 2 TRIPLE ONLY				
P15 Electromagnetism – Paper 2				
Magnetic fields				
Magnetic fields of electric currents				
The motor effect HT				
P16 Space – Paper 2 TRIPLE ONLY				

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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)				
Radiation and absorption (Electromagnetic waves)				