



**GCSE Revision
Topics
2016 - 2018**

Subject – Physics Only Higher

Topic	Tick/date when revised				
P1 Conservation and Dissipation of Energy					
P1.1 Changes in energy stores					
P1.2 Conservation of energy					
P1.3 Energy and work					
P1.4 Gravitational potential energy stores					
P1.5 Kinetic energy and elastic energy stores					
P1.6 Energy dissipation					
P1.7 Energy and efficiency					
P1.8 Electrical appliances					
P1.9 Energy and power					
P2 Energy Transfer by Heating					
P2.1 Energy transfer by conduction					
P2.2 Infrared radiation					
P2.3 More about infrared radiation					

P2.4 Specific heat capacity					
P2.5 Heating and insulating building					
P3 Energy Resources					
P3.1 Energy demands					
P3.2 Energy from wind and water					
P3.3 Power from the Sun and the Earth					
P3.4 Energy and the environment					
P3.5 Big energy issues					
P4 Electric Circuits					
P4.1 Electrical charges and fields					
P4.2 Current and charge					
P4.3 Potential difference and resistance					
P4.4 Component characteristics					
P4.5 Series circuits					
P4.6 Parallel circuits					
P5 Electricity in the Home					
P5.1 Alternating current					
P5.2 Cables and plugs					
P5.3 Electrical power and potential difference					

P5.4 Electrical currents and energy transfer					
P5.5 Appliances and efficiency					
P6 Molecules and Matter					
P6.1 Density					
P6.2 States of matter					
P6.3 Changes of state					
P6.4 Internal energy					
P6.5 Specific latent heat					
P6.6 Gas pressure and temperature					
P6.7 Gas pressure and volume					
P7 Radioactivity					
P7.1 Atoms and radiation					
P7.2 The discovery of the nucleus					
P7.3 Changes in the nucleus					
P7.4 More about alpha, beta and gamma radiation					
P7.5 Activity and half-life					
P7.6 Nuclear radiation in medicine					
P7.7 Nuclear fission					
P7.8 Nuclear fusion					

P7.9 Nuclear issues					
P8 Forces in Balance					
P8.1 Vectors and scalars					
P8.2 Forces between objects					
P8.3 Resultant forces					
P8.4 Moments at work					
P8.5 More about levers and gears					
P8.6 Centre of mass					
P8.7 Moments and equilibrium					
P8.8 The parallelogram of forces					
P8.9 Resolution of forces					
P9 Motion					
P9.1 Speed and distance-time graphs					
P9.2 Velocity and acceleration					
P9.3 More about velocity-time graphs					
P9.4 Analysing motion graphs					
P10 Force and Motion					
P10.1 Force and acceleration					
P10.2 Weight and terminal velocity					

P10.3 Forces and braking					
P10.4 Momentum					
P10.5 Using conservation of momentum					
P10.6 Impact forces					
P10.7 Safety first					
P10.8 Forces and elasticity					
P11 Force and Pressure					
P11.1 Pressure and surfaces					
P11.2 Pressure in a liquid at rest					
P11.3 Atmospheric pressure					
P11.4 Upthrust and flotation					
P12 Wave Properties					
P12.1 The nature of waves					
P12.2 The properties of waves					
P12.3 Reflection and refraction					
P12.4 More about waves					
P12.5 Sound waves					
P12.6 The uses of ultrasound					
P12.7 Seismic waves					

P13 Electromagnetic Waves					
P13.1 The electromagnetic spectrum					
P13.2 Light, infrared, microwaves and radio waves					
P13.3 Communications					
P13.4 Ultraviolet waves, X-rays and gamma rays					
P13.5 X-rays in medicine					
P14 Light					
P14.1 Reflection of light					
P14.2 Refraction of light					
P14.3 Light and colour					
P14.4 Lenses					
P14.5 Using lenses					
P15 Electromagnetism					
P15.1 Magnetic fields					
P15.2 Magnetic fields of electric currents					
P15.3 Electromagnets in devices					
P15.4 The motor effect					
P15.5 The generator effect					
P15.6 the alternating-current generator					

P15.7 Transformers					
P15.8 Transformers in action					
P16 Space					
P16.1 Formation of the Solar System					
P16.2 The life history of a star					
P16.3 Planets, satellites and orbits					
P16.4 The expanding universe					
P16.5 The beginning and future of the universe					