




ENERGY

Mark on how confident you are with each topic and what you need to do, use this as a checklist for your revision notes and then to keep track of the topics you have revised. Tick and date once you have completed the tasks.

Topic	How confident am I?			<p style="text-align: center;">KNOWLEDGE Definitions and Equations</p>	I have made my revision notes on this topic	I have revised this topic	I am confident on this topic	Evidence
								
	I could teach	I would need to look at my notes	I can't remember					
Energy stores and conservation								
Energy and work				Work = Force x distance				
Changes in Energy				Useful and wasted energy				
Gravitational potential energy stores				PE = mass x gravitational field strength x change in height				
Kinetic energy				KE = $\frac{1}{2}$ x mass x velocity ²				
Elastic potential energy stores				Elastic PE = $\frac{1}{2}$ x spring constant (k) x extension ²				
Energy, power and efficiency				Power = Work/ time, Power = Energy/time Efficiency = useful energy output/ total energy input				
Energy transfer by conduction				Conductor, insulator, thermal conductivity				
Infrared radiation				Black body radiation, wavelength				
Practical 2 – Testing Insulators								
Specific heat capacity				Energy = mass x specific heat capacity (c) x change in temperature (θ)				
Practical 1 – Specific heat capacity								
Heating and Insulation								
Energy resources				Renewable energy				
Energy and environment				Greenhouse gases, reliability, radioactive waste, global warming, pollution, carbon capture, fossil fuels				