

Year 10 Physics	Half Term 1	Half Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
Knowledge	<p>Molecules and Matter</p> <ul style="list-style-type: none"> Density States of matter Change of state Internal energy Latent heat Pressure and temp Pressure and volume <p>Energy</p> <ul style="list-style-type: none"> Energy stores Energy transfers Work Mechanical energy Elastic energy Efficiency Electrical appliances Energy transfer by conduction, convection and radiation Specific heat capacity Energy resources 	<p>Electricity</p> <ul style="list-style-type: none"> Static electricity Current and charge Potential difference Resistance IV characteristics Series circuits Parallel circuits AC/DC Plugs Electrical power Cost of electricity <p>Radioactivity</p> <ul style="list-style-type: none"> The atom The nucleus Isotopes Radiation Half life Radiation in medicine Fission and fusion Nuclear issues 	<p>Waves</p> <ul style="list-style-type: none"> Nature of waves Properties of waves Reflection and refraction Sound Ultrasound Seismic waves 	<p>Electromagnetic spectrum</p> <p>To includes uses and dangers of</p> <ul style="list-style-type: none"> Radio waves Microwaves Infra –red Visible Ultra violet x-rays and gamma rays x-rays in medicine 	<p>Electromagnetism</p> <ul style="list-style-type: none"> Magnetic fields Magnetic fields and current Electromagnetic devices Motor effect Generator effect AC generator Transformers 	<p>Space</p> <ul style="list-style-type: none"> Solar system Life cycle of a star Planets satellites and orbits The universe
Working Scientifically Skills	<p>Use appropriate apparatus to make and record a range of measurements to calculate densities of solids and liquids</p> <p>Use instruments to measure pd and current</p> <p>Use circuit diagrams to construct and check circuits</p>	<p>Using graphs and calculations to calculate half-life of radioisotopes</p> <p>Numeracy</p>	<p>Make observations of waves in fluids and solids to identify the suitability of apparatus to measure speed, frequency and wavelength</p>	<p>Making predictions with justifications</p> <p>Numeracy</p>	<p>Analysing the processes</p>	<p>Making predictions with justifications</p>
Core Practical	<ul style="list-style-type: none"> Density Specific heat capacity Thermal insulation 	<ul style="list-style-type: none"> Resistance IV characteristics 	<ul style="list-style-type: none"> Waves 			
Independent Learning Link	<p>Particle Model of Matter</p> <p>Energy</p>	<p>Electricity</p> <p>Atomic Structure</p>	<p>Wave properties</p>	<p>Sound Waves</p>	<p>Magnetism</p>	<p>Space</p>

Year 11 Physics	Half Term 1	Half Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
Knowledge	Electricity <ul style="list-style-type: none"> • Static electricity • Current and charge • Potential difference • Resistance • IV characteristics • Series circuits • Parallel circuits • AC/DC • Plugs • Electrical power • Cost of electricity 	Radioactivity <ul style="list-style-type: none"> • The atom • The nucleus • Isotopes • Radiation • Half life • Radiation in medicine • Fission and fusion • Nuclear issues Forces <ul style="list-style-type: none"> • Extension of a spring • Momentum • Changes in Momentum 	Electromagnetic spectrum To includes uses and dangers of <ul style="list-style-type: none"> • Radio waves • Microwaves • Infra –red • Visible • Ultra violet • x-rays and gamma rays • x-rays in medicine Electromagnetism <ul style="list-style-type: none"> • Magnetic fields • Magnetic fields and current • Electromagnetic devices • Motor effect • Generator effect • AC generator • Transformers 	Consolidation	Consolidation	
Working Scientifically Skills	Use appropriate apparatus Use instruments to measure pd and current Use circuit diagrams to construct and check circuits	Using graphs and calculations to calculate half-life of radioisotopes Numeracy Make observations of waves in fluids and solids to identify the suitability of apparatus to measure speed, frequency and wavelength	Analysing the process			
Core Practical	<ul style="list-style-type: none"> • Resistance • IV characteristics 	<ul style="list-style-type: none"> • Using graphs and calculations to calculate half-life of radioisotopes • Numeracy 				
Independent Learning Link	Electricity	Atomic Structure	Wave properties Sound Waves Magnetism			