



**Key Stage 5 Physics**  
**Curriculum Map**

Year 1		Year 2	
Teacher 1 (5)	Teacher 2 (4)	Teacher 1	Teacher 2
<b>Ch 3 Sensing</b> <ul style="list-style-type: none"> <li>• Current and pd</li> <li>• Resistance and conductance</li> <li>• Energy and power</li> <li>• Potential dividers</li> <li>• Internal resistance</li> <li>• Sensor analysis</li> <li>• Resistivity and conductivity</li> <li>• Drift velocity</li> </ul>	<b>Ch 4 Testing Materials</b> <ul style="list-style-type: none"> <li>• Material properties</li> <li>• Material tests</li> <li>• Stiffness</li> <li>• Young's Modulus</li> <li>• Composite materials</li> </ul>	<b>Ch 11 Modelling oscillations</b> <ul style="list-style-type: none"> <li>• Oscillations and phase</li> <li>• Time period and frequency for a spring</li> <li>• Time period and frequency for a pendulum</li> <li>• Simple Harmonic Motion</li> <li>• <math>x</math> <math>v</math> <math>a</math> motion graphs for oscillation</li> <li>• SHM Equation and solution</li> </ul>	<b>Ch12 Gravitational Field</b> <ul style="list-style-type: none"> <li>• Circular Motion</li> <li>• Gravitational force and field</li> <li>• Energy and Potential</li> <li>• Non-uniform fields</li> <li>• Kepler's Laws and orbits</li> </ul>
Assessment <ul style="list-style-type: none"> <li>• PAG combinations of resistors</li> <li>• PAG Resistivity</li> <li>• Introductory Test</li> <li>• EOU Test</li> </ul>	Assessment <ul style="list-style-type: none"> <li>• PAG Young's Modulus</li> <li>• Introductory Test</li> <li>• EOU Test</li> </ul>	Assessment <ul style="list-style-type: none"> <li>• PAG Measuring <math>g</math> from SHM</li> <li>• EOU Test</li> </ul>	Assessment <ul style="list-style-type: none"> <li>• EOU Test</li> </ul>
<b>Ch 1 Imaging</b> <ul style="list-style-type: none"> <li>• Images and pixels</li> <li>• Bits and bytes</li> <li>• Image processing</li> <li>• Power and curvature of lens</li> <li>• Lens formulae</li> <li>• Eye</li> </ul>	<b>Ch 5 Looking inside Materials</b> <ul style="list-style-type: none"> <li>• Measuring the size of a molecule</li> <li>• Structure of metals</li> <li>• Structure of polymers</li> <li>• Structure of ceramics</li> </ul>	<b>MOCK</b>	<b>MOCK</b>
Assessment <ul style="list-style-type: none"> <li>• EOU Test</li> </ul>	Assessment <ul style="list-style-type: none"> <li>• PAG Materials Presentation</li> <li>• EOU Test</li> </ul>	<b>Ch 14 simple models of matter</b> <ul style="list-style-type: none"> <li>• Gas Laws</li> <li>• Kinetic Model of Gases</li> <li>• Temperature and speed</li> <li>• Energy in matter</li> </ul>	<b>Ch 13 Our place in Universe</b> Measuring distance in the universe Measuring velocity in the universe Special relativity Big Bang and background microwave radiation

<b>MOCK</b>	<b>MOCK</b>	Assessment <ul style="list-style-type: none"> <li>• PAG Absolute zero</li> <li>• PAG Specific Heat Capacity</li> </ul>	Assessment <ul style="list-style-type: none"> <li>• EOU Test</li> </ul>
<b>Ch 2 Signalling</b> <ul style="list-style-type: none"> <li>• Sampling</li> <li>• Nyquist Theorem</li> <li>• Bits and Noise</li> <li>• Waveforms</li> </ul>	<b>Ch 8 Motion</b> Vectors Motion Graphs Modelling motion Acceleration	<b>Ch 15 Boltzmann Factor</b> <ul style="list-style-type: none"> <li>• Energy of particles</li> <li>• E/kT ratio</li> <li>• Boltzmann factor</li> <li>• Rates of reaction and BF</li> </ul>	<b>Ch 17 Electric field</b> <ul style="list-style-type: none"> <li>• Uniform electric fields</li> <li>• Non-uniform electric fields</li> <li>• Potential and field strength</li> <li>• Coulombs Law</li> </ul> + <b>Ch18 Looking inside the atom</b> <ul style="list-style-type: none"> <li>• Particle accelerators</li> </ul>
Assessment <ul style="list-style-type: none"> <li>• EOU Test</li> </ul>	Assessment <ul style="list-style-type: none"> <li>• PAG Acceleration due to Gravity</li> <li>• EOU Test</li> </ul>	Assessment <ul style="list-style-type: none"> <li>• EOU Test (with Ch 14)</li> </ul>	Assessment <ul style="list-style-type: none"> <li>• EOUP Test</li> </ul>
<b>Ch 6 Wave behaviour</b> <ul style="list-style-type: none"> <li>• Phase and superposition of waves</li> <li>• Path difference and interference</li> <li>• Refraction</li> <li>• Diffraction</li> <li>• Young's slits and diffraction gratings</li> </ul>	<b>Ch 9 Momentum Force and Energy</b> <ul style="list-style-type: none"> <li>• Conservation of momentum</li> <li>• Kinematic equations</li> <li>• 2D projectile motion</li> <li>• Energy work and power</li> </ul>	<b>Ch 16 Electromagnetism</b> <ul style="list-style-type: none"> <li>• Fields and flux</li> <li>• Faraday's Law</li> <li>• Lez's Law</li> <li>• Transformers</li> <li>• Motors and Generators</li> </ul>	
Assessment <ul style="list-style-type: none"> <li>• PAG Refractive index</li> <li>• PAG Speed of sound</li> <li>• PAG Wavelength of red light</li> <li>• EOU Test</li> </ul>		Assessment <ul style="list-style-type: none"> <li>• EOU Test</li> </ul>	
<b>Ch 7 Quantum Behaviour</b> <ul style="list-style-type: none"> <li>• Photons and energy</li> <li>• Phasors and probability</li> <li>• Many paths model</li> <li>• Electron diffraction</li> </ul>		<b>MOCK</b>	<b>MOCK</b>

<p>Assessment</p> <ul style="list-style-type: none"> <li>• PAG Planck's constant</li> <li>• EOU Test</li> </ul>		<p><b>Ch 19 Using the Atom</b></p> <ul style="list-style-type: none"> <li>• Ionising radiation</li> <li>• Dose and risk</li> <li>• Binding energy</li> <li>• BE and the Periodic Table</li> <li>• Fission and fusion</li> </ul>	<p><b>Ch 18 looking inside the atom</b></p> <ul style="list-style-type: none"> <li>• Rutherford scattering</li> <li>• Electron scattering</li> <li>• Creation and annihilation</li> <li>• Quarks</li> <li>• Energy levels</li> <li>• Wave equation and energy levels</li> </ul>
MOCK	MOCK	<p>Assessment</p> <ul style="list-style-type: none"> <li>• EOU Test</li> </ul>	<p>Assessment</p> <ul style="list-style-type: none"> <li>• EOU Test</li> </ul>
<p>Ch 10 Creating Models</p> <ul style="list-style-type: none"> <li>• Capacitors in circuits</li> <li>• Energy in capacitors</li> <li>• Exponential decay of <math>V</math>   <math>Q</math></li> <li>• Exponential equations and solution</li> </ul>	<p>Ch 10 Creating Models</p> <ul style="list-style-type: none"> <li>• Radioactivity and half-life</li> <li>• Exponential decay</li> <li>• Exponential equations and solution</li> </ul>	<b>PAST PAPER REVISION</b>	<b>PAST PAPER REVISION</b>
<p>Assessment</p> <ul style="list-style-type: none"> <li>• EOU Test</li> </ul>	<p>Assessment</p> <ul style="list-style-type: none"> <li>• PAG Exponential decay and thickness</li> <li>• EOU Test</li> </ul>	<b>A2 EXAMS</b>	<b>A2 EXAMS</b>