

Year 10 Triple Physics Curriculum Plan

Unit	Core		Hinterland		NC Coverage	Assessment	Whole Education Opportunities
	Knowledge	Skills	Knowledge	Skills			
Radioactivity	<ul style="list-style-type: none"> <li>Atomic models</li> <li>Atomic structure and atomic number</li> <li>Understanding electron promotion and ionisation</li> <li>Background radiation and its causes</li> <li>Types of radiation</li> <li>Linking radioactive decay to equations</li> <li>Concept of half-life and understanding half-life curves</li> <li>Dangers of radiation</li> <li>Radioactivity in medicine</li> <li>Nuclear energy</li> <li>Nuclear Fission</li> <li>Nuclear Fusion</li> </ul>	<ul style="list-style-type: none"> <li>Using models to understand the history of atoms</li> <li>Linking atomic theory to different topic</li> <li>Using diagrams to demonstrate understanding</li> <li>Using balanced equations</li> <li>Graph interpretation</li> <li>Health and safety understanding</li> <li>Understanding of diagnosing and treating cancer with radiotherapy</li> <li>Understanding of current and future energy production</li> </ul>	<ul style="list-style-type: none"> <li>Advanced decay equations</li> <li>Complex half-life graphs</li> <li>Introduction to cyclotrons</li> <li>Production of electricity in the future</li> </ul>	<ul style="list-style-type: none"> <li>Graph interpretation and extrapolation</li> </ul>	4WD2 4WV1 4WV2 4PG1 4PA1 4PA2 4PA3 4PA4 4PA5 4PA6 4PA7	<ul style="list-style-type: none"> <li>End of topic assessment (30 marks)</li> <li>PR points using mixed topic assessments</li> <li>PLC tests (10 marks each) – 4 in this topic</li> </ul>	<ul style="list-style-type: none"> <li>History – Chernobyl</li> </ul>
Astronomy	<ul style="list-style-type: none"> <li>The solar system</li> <li>Gravity and orbits</li> <li>Life cycle of stars</li> <li>Red shift</li> <li>Origin of the universe</li> </ul>	<ul style="list-style-type: none"> <li>Applying previous knowledge to new concept</li> <li>Using and rearranging equations</li> <li>Using evidence to understand models</li> <li>Using evidence to change/create new models</li> </ul>	<ul style="list-style-type: none"> <li>History of astronomy</li> <li>How will the universe end?</li> </ul>	<ul style="list-style-type: none"> <li>Discussion of current scientific understanding</li> </ul>		End of topic assessment (30 marks) PR points use mixed topic assessments	
Electricity	<ul style="list-style-type: none"> <li>Circuits</li> <li>Current and Potential difference</li> <li>Current, charge and energy</li> <li>Resistance</li> <li>Core practical – investigating resistance</li> <li>Transferring energy</li> <li>Power</li> <li>Transferring energy by electricity</li> <li>Electrical Safety</li> <li>Charges and static electricity</li> <li>Dangers and uses of static electricity</li> <li>Electric fields</li> </ul>	<ul style="list-style-type: none"> <li>Understanding series and parallel circuits</li> <li>Drawing electrical circuits</li> <li>Building electrical circuits</li> <li>Using and rearranging equations</li> <li>Practical skills</li> <li>Health and safety understanding</li> <li>Identifying field lines for electric fields</li> </ul>				<ul style="list-style-type: none"> <li>End of topic assessment (30 marks)</li> <li>PR points using mixed topic assessments</li> </ul>	