

**Year 10 Curriculum Overview [2022-2023]**  
**Subject – Construction and the Built Environment**

Autumn Term	Knowledge & Understanding			Literacy Skills  Opportunities for developing literacy skills	Employability Skills [if any]	Assessment Opportunities
	Composites	Components  [includes understanding of KEY concepts & subject specific vocab]	Formal Retrieval [if any]			
<b>HT1 and HT2</b>  <b>Unit 5</b>  <b>Exploring Carpentry and Joinery Principles and Techniques</b>	Tools	<ul style="list-style-type: none"> <li>• Setting-out tools</li> <li>• Hand tools</li> <li>• Equipment</li> <li>• Fixings</li> </ul>	<ul style="list-style-type: none"> <li>• Use of tools</li> </ul>	<ul style="list-style-type: none"> <li>• Writing to inform.</li> <li>• Writing for an audience.</li> <li>• <b>Keywords-</b> manufacture, sustainability, principles, technique, synthetic, hazards.</li> </ul>	<ul style="list-style-type: none"> <li>• Planning</li> <li>• Risk-management</li> <li>• Team working</li> <li>• Numeracy</li> <li>• Independence</li> <li>• Presentation skills</li> <li>• Communication</li> <li>• ICT skills</li> <li>• Organising</li> </ul>	<ul style="list-style-type: none"> <li>• Final assessment based on portfolio work</li> <li>• Identify /outline / justify/ explain / evaluate the selection of tools and the safe use/storage.</li> </ul>
	Glues	<ul style="list-style-type: none"> <li>• Natural glue</li> <li>• Synthetic glue</li> </ul>	<ul style="list-style-type: none"> <li>• Use of glue</li> </ul>			
	Materials	<ul style="list-style-type: none"> <li>• Hardwood</li> <li>• Softwood</li> <li>• Man-made wood</li> </ul>	<ul style="list-style-type: none"> <li>• Properties of materials</li> </ul>			
	Health and safety	<ul style="list-style-type: none"> <li>• Risk assessment</li> <li>• Hazards</li> <li>• Control measures</li> </ul>	<ul style="list-style-type: none"> <li>• Risks and hazards</li> </ul>			

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Spring Term	Knowledge & Understanding			Literacy Skills  Opportunities for developing literacy skills	Employability Skills [if any]	Assessment Opportunities
	Composites	Components  [includes understanding of KEY concepts & subject specific vocab]	Formal Retrieval [if any]			
<b>HT3 and HT4</b>  <b>Unit 2</b>  <b>Scientific and Mathematical Applications for Construction</b>	Effects of force	<ul style="list-style-type: none"> <li>Nature of forces/identifying forces</li> <li>Effects of forces on materials</li> <li>Hooke's law</li> <li>Determining effect of forces</li> </ul>	<ul style="list-style-type: none"> <li>Forces</li> <li>Materials</li> </ul>	<ul style="list-style-type: none"> <li>Writing to inform.</li> <li>Writing for an audience.</li> <li><b>Keywords-</b> force, temperature, state, mathematical, scientific, materials.</li> </ul>	<ul style="list-style-type: none"> <li>Planning</li> <li>Numeracy</li> <li>Independence</li> <li>Presentation skills</li> <li>Communication</li> <li>ICT skills</li> <li>Organising</li> </ul>	<ul style="list-style-type: none"> <li>Final assessment based on portfolio work</li> <li>Identify/ describe /discuss/evaluate the effects of force and temperature on different construction materials.</li> <li>Plot / apply / solve / justify algebraic and graphical methods.</li> </ul>
	Changes in temperature	<ul style="list-style-type: none"> <li>Changes in temperature</li> <li>Scientific principles</li> <li>Effects of temperature on materials</li> </ul>	<ul style="list-style-type: none"> <li>Temperature</li> <li>Materials</li> </ul>			
	Algebraic and graphical methods	<ul style="list-style-type: none"> <li>Applications</li> <li>Rearranging formulae</li> <li>Solving equations</li> <li>Plotting graphs</li> <li>Accuracy of calculations</li> </ul>	<ul style="list-style-type: none"> <li>Algebra</li> <li>Graphs</li> </ul>			
	Mensuration	<ul style="list-style-type: none"> <li>Areas</li> <li>Volumes</li> </ul>	<ul style="list-style-type: none"> <li>Area</li> <li>Volume</li> </ul>			
	Trigonometry	<ul style="list-style-type: none"> <li>Applications</li> <li>Pythagoras</li> <li>Relationships</li> <li>Accuracy</li> </ul>				

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<b>HT5 and HT6</b>  <b>Unit 1</b>  <b>Construction Technology</b>	Performance requirements	<ul style="list-style-type: none"> <li>Strength and stability</li> </ul>		<ul style="list-style-type: none"> <li>Writing.</li> <li>Independent reading.</li> <li>Comprehension</li> <li><b>Keywords-</b> Strength, stability, performance requirements, safety, sustainability, resistance.</li> </ul>	<ul style="list-style-type: none"> <li>Planning</li> <li>Independence</li> <li>Presentation skills</li> <li>Communication</li> <li>ICT skills</li> <li>Research</li> </ul>	<ul style="list-style-type: none"> <li>Final examination – Year 11</li> </ul>
	Fire resistance	<ul style="list-style-type: none"> <li>Materials</li> <li>Compartments</li> <li>Barriers</li> </ul>				
	Thermal	<ul style="list-style-type: none"> <li>Purpose</li> <li>Types</li> <li>Location</li> </ul>				
	Sound	<ul style="list-style-type: none"> <li>Purpose</li> <li>Types</li> <li>Location</li> <li>Provision</li> </ul>				
	Weather	<ul style="list-style-type: none"> <li>Purpose</li> <li>Materials</li> <li>Location</li> </ul>				
	Sustainability	<ul style="list-style-type: none"> <li>Purpose</li> <li>Methods</li> <li>Materials</li> </ul>				

	Low-rise construction	<ul style="list-style-type: none"><li>• Cavity wall</li><li>• SIPS</li><li>• Cross-wall</li><li>• Timber framed construction</li></ul>				
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