

**Year 10 GCSE DT (MATERIALS) Curriculum Map 2023-24**

<b>Term</b>	<b>Topic/Unit title</b>	<b>Essential knowledge (what students should know and understand by the end of the unit/topic)</b>	<b>Essential skills (what students should be able to do by the end of the unit/topic)</b>
<b>Autumn 1</b>	Paper holder  Car	How to read and follow a drawing  Different properties of different types of timber  Sources and origins of timber  Measurements and accuracy  Systems approach to designing  Tolerances  Project evaluations	Accuracy whilst measuring and marking out  Safe use of hand tools: coping saw, tenon saw, chisel, glasspaper, drill, plane  How to apply a finish
<b>Autumn 2</b>	Car  Mirror	Existing designers/companies  Designing from a moodboard  Surface treatments and finishes  Commercial manufacture  CAD/CAM	Safe use of hand tools: plane, hacksaw, tin snips  Use of 2D Design effectively including cutting on a laser  How to apply a finish  How to use a lathe
<b>Spring 1</b>	Foot stool	Lamination  The 6 R's  Scales of production	How to laminate  Different hand cut joints  Designing and modelling (card and 3D)

		<p>Sustainability and the environment</p> <p>Production aids</p>	<p>How to create ideas using different strategies</p>
<b>Spring 2</b>	Foot stool	<p>Design strategies</p> <p>Scales of production</p> <p>Primary and secondary data</p> <p>Communication of design ideas</p> <p>Prototype development</p>	<p>How to use a template</p> <p>How to use a biscuit jointer.</p> <p>How to create a dowelled joint</p>
<b>Summer 1</b>	Bug hotel/spatula	<p>Energy generation and storage</p> <p>Modern and smart materials</p> <p>New and emerging technologies</p>	<p>Striving for quality</p> <p>Independence</p>
<b>Summer 2</b>	Start NEA - research, spec, designs	<p>How to conduct research</p> <p>Application of previous knowledge:</p> <p>Design strategies</p> <p>Communication of design ideas</p>	<p>Apply previous knowledge with greater independence</p>

**Year 11 GCSE DT (MATERIALS) Curriculum Map**

<b>Term</b>	<b>Topic/Unit title</b>	<b>Essential knowledge (what students should know and understand by the end of the unit/topic)</b>	<b>Essential skills (what students should be able to do by the end of the unit/topic)</b>
<b>Autumn 1</b>	NEA - design development	Application of previous knowledge from Y10: Independence Communication of design ideas Prototype development CAD/CAM Sustainability and the environment	Quality of work How to make card models
<b>Autumn 2</b>	NEA - design development	Application of previous knowledge from Y10: Independence Communication of design ideas Prototype development CAD/CAM Sustainability and the environment	How to apply a finish
<b>Spring 1</b>	NEA - making	Application of previous knowledge from Y10: Independence	Application of previous knowledge from Y10: Independence

		Project evaluations	Accuracy whilst measuring and marking out How to use a template Safe use of hand tools and machines How to apply a finish Quality of work
<b>Spring 2</b>	NEA - evaluation	Application of previous knowledge from Y10: Independence Project evaluations	
<b>Summer 1</b>	Revision	Application of previous knowledge from Y10 Exam question practice	