

Year 10 GCSE DT (MATERIALS) Curriculum Map

Note – timings in Y10 may be subject to change depending on the application, understanding and progress of pupils.

Term	Topic/Unit title	Essential knowledge (what students should know and understand by the end of the unit/topic)	Essential skills (what students should be able to do by the end of the unit/topic)
Autumn 1	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
Autumn 2	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

Spring 1	Foot stool	<p>Lamination</p> <p>The 6 R's</p> <p>Scales of production</p> <p>Sustainability and the environment</p> <p>Production aids</p>	<p>How to laminate</p> <p>Different hand cut joints</p> <p>Designing and modelling (card and 3D)</p> <p>How to create ideas using different strategies</p>
Spring 2	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>
Summer 1	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>
Summer 2	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>

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Term	Topic/Unit title	Essential knowledge (what students should know and understand by the end of the unit/topic)	Essential skills (what students should be able to do by the end of the unit/topic)
Autumn 1	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
Autumn 2	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

Spring 1	NEA - making	Application of previous knowledge from Y10: Independence Project evaluations	Application of previous knowledge from Y10: Independence 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
Spring 2	NEA - evaluation	Application of previous knowledge from Y10: Independence Project evaluations	
Summer 1	Revision	Application of previous knowledge from Y10 Exam question practice	
Summer 2	Not in school		