



YEAR 12 TERM 1

'An ambitious curriculum that meets the needs of all'

Medium Term Planning - Topic: Timbers and processes

Curriculum Intent

In addition to working further on objectives from Year 9 , pupils will be taught, following National Curriculum guidelines, the following this term:

To be able to be aware of the different **stock forms** of timber, including:

- rough sawn
- planed square edge (PSE)
- natural timber
- planed all round (PAR)
- manufactured boards
- mouldings

To understand the **performance characteristics** of woods, including:

- grain pattern
- grain direction
- surface defects
- warpage
- shrinkage
- splitting
- joining
- forming
- laminating
- resistance to decay
- machining qualities
- moisture resistance
- toxicity

To know the following **softwoods/hardwoods** and wood products:

- pine
- spruce
- douglas fir
- redwood
- cedar
- larch
- oak
- ash
- mahogany
- teak
- birch
- beech

To know the following **manufactured boards** and products:

- plywood
- marine plywood
- flexible plywood
- chipboard
- medium density fibreboard (MDF)

Skills/Assessment Objective Links

	<ul style="list-style-type: none"> • veneers and melamine formaldehyde laminates. • aeroply <p>To be able to explain the suitability of the different joining methods for a range of specific products and scales of production.</p> <ul style="list-style-type: none"> • Specific processes to include: • addition/fabrication processes: • traditional wood jointing: • dovetail joint • comb joint • housing joint • half-lap joint • dowel joint • mortise and tenon • component jointing: • knock down (KD) fittings • wood screws • nuts and bolts • coach bolts <p>Students should be aware of how timber can be formed into 3D products.</p> <p>To be aware of the ways that woods can be finished to enhance their appearance or prevent rotting.</p> <p>Specific finishes to include:</p> <ul style="list-style-type: none"> • Wax • Varnishing • Painting • Oils <p>To know how timber can be formed in to 3D products by:</p> <ul style="list-style-type: none"> • laminating • steam bending • turning between centres use of the chuck and faceplate • milling • routing to produce slots, holes and profiles.
Spiritual, moral, social, and cultural development	<p>SMSC: Sustainability linking to materials and reduction in CO2 emissions</p> <p>PSHE/British Values: Crowd funding, Links to British car industry</p> <p>Skills Builder: Linking product with the type of material and the reasons why the material is used.</p>
Numeracy	
Literacy	<p>Vocabulary Tier 2: See highlighted above</p> <p>Vocabulary Tier 3: See highlighted above</p> <p>Reading: exam style question, text book terminology</p> <p>Writing: use of technical tier 3 vocabulary within an exam question and annotation</p> <p>Oracy: when questioned pupils are able to use technical subject specific language</p>
Becoming future ready	<p>Careers/Employability: Environmental industry, various industrial links as examples</p>
Adaptation	<p>Throughout this topic, quality first teaching will provide differentiation:</p>

QFT/SEND Provision	<p>By product:</p> <p>By resource: PG Online booklets, teacher let focus, PG Online books</p> <p>By Intervention: by providing different levels of supervision and support</p> <p>By Progressive Questioning: exploring pupils' understanding through interactive dialogue.</p> <p>By Grouping: according to prior attainment, gender, social preference, preferred learning style.</p> <p>By Task: Pupils should be involved in the identification of targets which are meaningful to them and in the selection of an appropriate task from the given range.</p> <p>By Offering Optional Activities: In class or as homework, to extend learning.</p> <p>This QFT/SEND provision will be explicit within the lesson-by-lesson schemes of work.</p>
Implementation Curriculum Delivery	
Learning Outcomes (Knowledge)	<ul style="list-style-type: none"> • All above as this is the specific materials are for GCSE <p>Red denotes interleaving; aspects of knowledge covered previously.</p>
Current learning to be developed in the future within:	<p>To use the information in order to apply in annotations in the NEA and use the material in the making aspect of the course.</p>
Assessment	<p>End of Unit test on material areas – using PG Online resources and text book and linking to PLCs in Doodle</p>
Impact	<p>Pupils to have knowledge and understanding of timbers, processes and finishes in order to be able to answer exam style questions and apply knowledge and understanding to NEA tasks.</p>

