

**CoDA Curriculum**  
**DESIGN & TECHNOLOGY Year 10-11**  
**TIMBER BASED PRODUCTS**  
**(AQA)**



*Improving the life chances of all students*

Students will be taught to...	
<ul style="list-style-type: none"> <li>• demonstrate their understanding that all design and technological activity takes place within contexts that influence the outcomes of design practice</li> <li>• develop realistic design proposals as a result of the exploration of design opportunities and users' needs, wants and values</li> <li>• use imagination, experimentation and combine ideas when designing</li> <li>• develop the skills to critique and refine their own ideas whilst designing and making</li> <li>• communicate their design ideas and decisions using different media and techniques, as appropriate for different audiences at key points in their designing</li> <li>• develop decision making skills, including the planning and organisation of time and resources when managing their own project work</li> <li>• develop a broad knowledge of materials, components and technologies and practical skills to develop high quality, imaginative and functional prototypes</li> <li>• be ambitious and open to explore and take design risks in order to stretch the development of design proposals, avoiding clichéd or stereotypical responses</li> <li>• consider the costs, commercial viability and marketing of products</li> <li>• demonstrate safe working practices in design and technology</li> <li>• use key design and technology terminology including those related to: designing, innovation and communication; materials and technologies; making, manufacture and production; critiquing, values and ethics.</li> </ul>	

Students will be taught and assessed on their ability to...			
<b>AO1</b>	<b>Identify, investigate and outline design possibilities</b>	Identifying & investigating design possibilities	
<b>AO2</b>	<b>Design and make prototypes that are fit for purpose</b>	Generating design ideas	Producing a design brief & specification
<b>AO3</b>	<b>Analyse and evaluate</b>	Developing design ideas	Realising design ideas
		Analysis	Evaluation

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>Y10</b>	<p><b>Unit 3 Materials</b> Define, categorise and describe the primary sources of materials for producing:</p> <ul style="list-style-type: none"> <li>• Papers &amp; Boards</li> <li>• Timbers</li> <li>• Metals and alloys</li> <li>• Polymers</li> <li>• Textiles</li> </ul> <p><b>Practical</b> - Box Project. Marking out, cutting and making a simple box using different types of joints.</p>	<p><b>Unit 4 Common Specialist Tech Principles including:</b></p> <ul style="list-style-type: none"> <li>• Forces &amp; Stresses</li> <li>• Improving functionality</li> <li>• Ecological &amp; social footprint</li> <li>• The 6 R's</li> <li>• Scales of production</li> </ul> <p><b>Unit 6 Designing Principles:</b></p> <ul style="list-style-type: none"> <li>• Investigation of primary &amp; secondary data</li> <li>• The work of others</li> <li>• Design strategies</li> <li>• Communication of design ideas</li> </ul> <p><b>Practical</b> - Re-use can project. Making a unique Tea light</p>	<p><b>Unit 7 Making Principles including:</b></p> <ul style="list-style-type: none"> <li>• Selection of materials and components</li> <li>• Tolerances</li> <li>• Material management</li> <li>• Tools, equipment, techniques and finishes</li> <li>• Surface treatments and finishes</li> </ul> <p><b>None Exam Assessment (NEA)</b> mock practice to familiarise pupils with NEA process</p> <p><b>Practical</b> - Mini Table project to consider mass/batch production of similar items.</p>	<p><b>Unit 5B Timber:</b></p> <ul style="list-style-type: none"> <li>• Sources and origins</li> <li>• Working with timbers</li> <li>• Commercial manufacturing</li> </ul> <p>None Exam Assessment (NEA) mock practice to familiarise pupils with NEA process</p> <p><b>Practical</b> - Mini Table project to consider mass batch production of similar items.</p>	<p><b>Unit 1 New Technologies:</b></p> <ul style="list-style-type: none"> <li>• Industry and enterprise</li> <li>• Sustainability and the environment</li> <li>• People, culture and society</li> <li>• Production techniques and systems</li> <li>• Informing design decisions</li> </ul> <p><b>Practical</b> – Fed by mock NEA. Consider iterative design solutions through the use of modelling</p>	<p><b>Unit 2 Energy, Materials, Systems and Devices:</b></p> <ul style="list-style-type: none"> <li>• Energy generation</li> <li>• Energy storage</li> <li>• Modern materials</li> <li>• Smart materials</li> <li>• Composite materials and technical textiles</li> <li>• Systems approach to designing</li> <li>• Electronic systems processing</li> <li>• Mechanical devices</li> </ul> <p>NEA – Discussions and preparation for NEA in year 11 once contextual challenges have been released</p>
<b>Y11</b>	<p><b>NEA based on relevant contextual challenge:</b></p> <ul style="list-style-type: none"> <li>• Power point folder work (20 – 30 sheets)</li> <li>• Computer aided design solutions</li> <li>• Hand drawn design ideas</li> <li>• Practical modelling</li> <li>• Practical prototype solution to contextual challenge</li> </ul>			<p><b>Exam Preparation</b></p> <ul style="list-style-type: none"> <li>• Discussions of previous units to complete any missing knowledge (driven by pupils RAG rating of each delivered unit)</li> <li>• Practice of exam style questions</li> <li>• Mock exam practice using previous exam papers</li> </ul>		