

**Subject Design and Technology**

Date	Exams/ Assess	Unit(s)
4/9/23		<b>Technical Principles</b> <ul style="list-style-type: none"> <li>Materials and their applications (TP)</li> <li>Testing materials (TP)</li> </ul>
11/9/23		Performance characteristics of materials (TP): <ul style="list-style-type: none"> <li>papers and boards</li> <li>composites.</li> </ul>
18/9/23		Performance characteristics of materials (TP) <ul style="list-style-type: none"> <li>polymer based sheet and film</li> <li>biodegradable polymers.</li> </ul>
25/9/23		Performance characteristics of materials (TP): <ul style="list-style-type: none"> <li>woods</li> <li>smart and modern materials.</li> <li>Metals</li> <li>Polymers</li> </ul>
2/10/23		<b>Focused Practical Skills Activity</b> <ul style="list-style-type: none"> <li>Metal Turning</li> <li>Internal / External Threads</li> </ul>
9/10/23		<ul style="list-style-type: none"> <li>Timber laminating, Steam Bending</li> <li>Vacuum Forming</li> </ul>
16/10/23		<b>Computer Aided Design / Manufacture</b> <ul style="list-style-type: none"> <li>Sketch Up</li> <li>2D Design</li> <li>Laser Cutter</li> </ul>
30/10/23		<b>Design and make principles.</b> <ul style="list-style-type: none"> <li>Design methods and processes (DMP)</li> </ul>
6/11/23		<ul style="list-style-type: none"> <li>Design theory (DMP)</li> <li>Technology and cultural changes (DMP)</li> </ul>
13/11/23		<ul style="list-style-type: none"> <li>Design processes (DMP)</li> <li>Critical analysis and evaluation (DMP)</li> <li>Selecting appropriate tools, equipment and processes (DMP)</li> <li>Accuracy in design and manufacture (DMP)</li> </ul>
20/11/23		<b>Practical Skills Focus.</b> <ul style="list-style-type: none"> <li>Joining of materials</li> </ul>
27/11/23		Timbers - Temporary and permanent fixing methods Metals – Temporary and permanent, Rivets, Welding, Brazing <ul style="list-style-type: none"> <li>Metal forming and shaping – Bending, Forging, Casting.</li> <li>Use of the milling machine</li> </ul>
4/12/23		<b>NEA</b>

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11/12/23		<ul style="list-style-type: none"> <li>Investigation of design contexts / Exploration of possible options.</li> </ul>
1/1/24		<p><b>Design and Make Principles</b></p> <ul style="list-style-type: none"> <li>Responsible design (DMP)</li> <li>Design for manufacture (DMP)</li> </ul> <p><b>Technical Principles</b></p> <ul style="list-style-type: none"> <li>Enhancement of materials (TP)</li> <li>Forming, redistribution and addition processes (TP)</li> <li>The use of finishes (TP)</li> </ul> <p><b>Practical Skills Focus</b></p> <ul style="list-style-type: none"> <li>Timber – Milling and Routersing Timbers - Temporary and permanent fixing methods</li> <li>Finishing Processes – Timber and Metal</li> </ul> <p><b>NEA</b></p> <ul style="list-style-type: none"> <li>Investigation of design contexts / Exploration of possible options.</li> </ul>
8/1/24		
15/1/24		
22/1/24		
29/1/24		
5/2/24		
12/2/24		
26/2/24		
4/3/24		
11/3/24		
18/3/24		
25/3/24		
15/4/24		<p><b>Technical Principles</b></p> <ul style="list-style-type: none"> <li>Design communication (TP)</li> </ul>
22/4/24		<p><b>Design and Make Principles</b></p> <ul style="list-style-type: none"> <li>Technology and cultural changes (A-level specific) (DMP)</li> <li>Design processes – prototype development (A-level specific) (DMP)</li> </ul>

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29/4/24		<ul style="list-style-type: none"> <li>Design processes (A-level specific) (DMP) – iterative design in commercial contexts</li> </ul>
6/5/24		<p><b>Start of NEA portfolio</b></p> <p><b>AO1 Section A – Identifying and investigating design possibilities (20 marks)</b></p> <ul style="list-style-type: none"> <li>Rationale for chosen context clearly identified. Investigation including: disassembly, practical experimentation, visits, surveys and interviews, focus groups, primary and secondary research. Investigation material thoroughly analysed and initial concepts generated.</li> </ul>
13/5/24		<p><b>AO1 Section B – Producing a design brief and specification (10 marks)</b></p> <ul style="list-style-type: none"> <li>Produce a clear and challenging design brief and fully detailed design specification reflecting thorough consideration of investigations undertaken.</li> </ul>
20/5/24		
3/6/24		<p><b>Design and Make Principles</b></p> <ul style="list-style-type: none"> <li>Design theory (A-level specific) (DMP)</li> <li>Design theory (A-level specific) (DMP)</li> <li>Selecting appropriate tools, equipment and processes (A-level specific) (DMP)</li> <li>Responsible design (A-level specific) (DMP)</li> <li>Design for manufacture and project management (A-level specific) (DMP)</li> </ul>
10/6/24		
17/6/24		
24/6/24		<p><b>NEA</b></p> <p><b>AO2 Section C – Development of design proposal(s) (25 marks)</b></p> <ul style="list-style-type: none"> <li>Generate design proposals that take full account of the design brief and specification.</li> <li>Design proposals should reflect on first concepts and may use a variety of media in the development of a prototype that can be manufactured by the student. Constant reference to the design brief and design specification should be evident. Modelling is a key element of this assessment criterion.</li> <li>Produce a comprehensive and fully detailed manufacturing specification.</li> </ul>
1/7/24		
8/7/24		
15/7/24		