

**Year 7 DT Rotation**

**Department: Technology**

**Unit of Work: Chair Design**

Unit	2-3	4-6	7-9
<p><b>Identifying &amp; investigating design opportunities.</b></p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> I can identify a design problem and can analyse this problem using the 5Ws.</li> <li><input type="checkbox"/> I can identify the needs and wants of the user.</li> <li><input type="checkbox"/> I can identify the moral, social and economic factors that need to be considered when designing a new product.</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> I can identify several design problems or opportunities based on the design context.</li> <li><input type="checkbox"/> I can identify the needs and wants of the user and have described the cultural and socio-economic factors of the user.</li> <li><input type="checkbox"/> I can identify the moral, social and economic factors that need to be considered when designing for the potential user and the constraints of these.</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> I can identify and explain several design problems or opportunities based on the design context.</li> <li><input type="checkbox"/> I can identify the needs and wants of the user and have described the cultural and socio-economic factors of the user and how these might influence my design.</li> <li><input type="checkbox"/> I can explain the moral, social and economic factors that need to be considered when designing for the potential user and the constraints of these.</li> </ul>
<p><b>Analysing existing products</b></p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> I can analyse 1-2 product using ACCESS FM.</li> <li><input type="checkbox"/> I can identify the needs and wants of the user. 5Ws</li> <li><input type="checkbox"/> I can identify the advantages and disadvantages of each product.</li> <li><input type="checkbox"/> I can suggest how the product could be improved.</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> I can analyse 2-3 products using ACCESS FMM. I can explain and justify each the design decisions made by both the designer and manufacturer.</li> <li><input type="checkbox"/> I can identify the needs and wants of the user and have described the cultural and socio-economic factors of the user.</li> <li><input type="checkbox"/> I can evaluate each product in relation to the needs and wants of the user.</li> <li><input type="checkbox"/> I can suggest 2 improvements for each of the products in relation to the user. I can explain how and why these improvements could be made.</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> I can analyse 3-4 products using ACCESSFM. I can explain and justify each of the design decisions made both designer and manufacturer and explain how this will impact on my designs.</li> <li><input type="checkbox"/> I can explain the needs and wants of the user in relation to cultural and socio-economic factors of the user and how this will impact on my design decisions.</li> <li><input type="checkbox"/> I can evaluate each product in relation to the user, the materials and components.</li> <li><input type="checkbox"/> I can suggest 3-4 improvements for each product in relation to the user. I can explain how and why these improvements could be made using materials and components subject knowledge.</li> </ul>

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Analysing existing products	<ul style="list-style-type: none"> <li data-bbox="315 323 835 384"><input type="checkbox"/> I can analyse 1-2product using ACCESS FM.</li> <li data-bbox="315 507 835 568"><input type="checkbox"/> I can identify the needs and wants of the user. 5Ws</li> <li data-bbox="315 660 835 721"><input type="checkbox"/> I can identify the advantages and disadvantages of each product.</li> <li data-bbox="315 750 835 810"><input type="checkbox"/> I can suggest how the product could be improved.</li> </ul>	<ul style="list-style-type: none"> <li data-bbox="862 323 1458 448"><input type="checkbox"/> I can analyse 2-3 products using ACCESS FMM. I can explain and justify each the design decisions made by both the designer and manufacturer.</li> <li data-bbox="862 507 1458 600"><input type="checkbox"/> I can identify the needs and wants of the user and have described the cultural and socio-economic factors of the user.</li> <li data-bbox="862 660 1458 721"><input type="checkbox"/> I can evaluate each product in relation to the needs and wants of the user.</li> <li data-bbox="862 750 1458 874"><input type="checkbox"/> I can suggest 2 improvements for each of the products in relation to the user. I can explain how and why these improvements could be made.</li> </ul>	<ul style="list-style-type: none"> <li data-bbox="1485 323 2159 448"><input type="checkbox"/> I can analyse 3-4 products using ACCESSFM. I can explain and justify each of the design decisions made both designer and manufacturer and explain how this will impact on my designs.</li> <li data-bbox="1485 507 2159 632"><input type="checkbox"/> I can explain the needs and wants of the user in relation to cultural and socio-economic factors of the user and how this will impact on my design decisions.</li> <li data-bbox="1485 660 2159 721"><input type="checkbox"/> I can evaluate each product in relation to the user, the materials and components.</li> <li data-bbox="1485 750 2159 874"><input type="checkbox"/> I can suggest 3-4 improvements for each product in relation to the user. I can explain how and why these improvements could be made using materials and components subject knowledge.</li> </ul>

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The Design Brief	<ul style="list-style-type: none"> <li><input type="checkbox"/> I can write a design brief in response to this problem based on research carried out.</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> I can write a design brief that is clearly informed by my research into a range of problems and design opportunities.</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> I can write a design brief that is clearly informed by my research into a range of problems and design opportunities.</li> </ul>
Design Specification	<ul style="list-style-type: none"> <li><input type="checkbox"/> I can write a design specification based on ACCESS FM.</li> <li><input type="checkbox"/> I can identify measurable criteria to inform my design.</li> <li><input type="checkbox"/> I can explain <b>how</b> I will meet each of my specification points.</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> I can write a design specification based on ACCESS FMM and the end users needs and wants being met.</li> <li><input type="checkbox"/> I can identify measurable criteria such as ergonomics how the product could be manufactured in industry in terms of quantities.</li> <li><input type="checkbox"/> I can explain <b>how</b> I will meet each of my specification points.</li> <li><input type="checkbox"/> I can <b>justify</b> and give reasons for each of my design specification points linking to my research.</li> <li><input type="checkbox"/> I can identify how each of my points meet the needs of my user.</li> <li><input type="checkbox"/> I can prioritise each of my specification points.</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> I can write a detailed design specification based on ACCESS FMM and the end users needs and wants being met.</li> <li><input type="checkbox"/> I can identify measurable criteria such as ergonomics how the product could be manufactured in industry in terms of quantities and its impact on cost and the environment.</li> <li><input type="checkbox"/> I can explain <b>how</b> I will meet each of my specification points.</li> <li><input type="checkbox"/> I can <b>justify</b> and give reasons for each of my design specification points linking to my research.</li> <li><input type="checkbox"/> I can explain how each of my points meet the needs of my user</li> <li><input type="checkbox"/> I can prioritise each of my specification points and explain why I have put them in this order of importance.</li> </ul>

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<b>Woods and Boards</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Identify what a softwood and hardwood is.</li>   <li><input type="checkbox"/> Identify the differences between natural and manufactured boards.</li>   <li><input type="checkbox"/> Identify a range of natural and manufactured boards</li>   <li><input type="checkbox"/> Identify the advantages and disadvantages of a range of natural and manufactured boards.</li>   <li><input type="checkbox"/> Identify the positive and negative impact of using natural and manufactured boards.</li>   <li><input type="checkbox"/> Create a design that applies a good knowledge of natural and manufactured boards.</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Describe what a softwood and hardwood is.</li>   <li><input type="checkbox"/> Describe the differences between natural and manufactured boards.</li>   <li><input type="checkbox"/> Describe the properties of a range of natural and manufactured boards</li>   <li><input type="checkbox"/> Describe the advantages and disadvantages of a range of natural and manufactured boards.</li>   <li><input type="checkbox"/> Describe the positive and negative impact of using natural and manufactured boards.</li>   <li><input type="checkbox"/> Create a design that applies a good knowledge of natural and manufactured boards and their properties.</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Explain what a softwood and hardwood is.</li>   <li><input type="checkbox"/> Explain the difference between natural and manufactured boards.</li>   <li><input type="checkbox"/> Explain the properties of a range of natural and manufactured boards</li>   <li><input type="checkbox"/> Explain the advantages and disadvantages of a range of natural and manufactured boards.</li>   <li><input type="checkbox"/> Explain the positive and negative impact of using natural and manufactured boards.</li>   <li><input type="checkbox"/> Create a design that applies a good knowledge of natural and manufactured boards and their properties with clear justifications for material decisions stated.</li> </ul>

<p><b>Making</b></p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> I can select and safely use specialist tools, techniques, processes, equipment and machinery.</li>   <li><input type="checkbox"/> I can make a final prototype that is accurate in parts.</li>   <li><input type="checkbox"/> I can make a final prototype that meets some of the needs, wants and values of the user</li>   <li><input type="checkbox"/> I can make a prototype that meets some of my specification points.</li>   <li><input type="checkbox"/> I can make a prototype that uses more than one skill.</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> I can select and safely use specialist tools, techniques, processes, equipment and machinery.</li>   <li><input type="checkbox"/> I can make a final prototype that is accurate in most parts due to accurate marking out.</li>   <li><input type="checkbox"/> I can make a final prototype that meets most of the needs, wants and values of the user.</li>   <li><input type="checkbox"/> I can make a prototype that meets most of my specification points.</li>   <li><input type="checkbox"/> I can make a prototype that uses a range of skills and techniques.</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> I can select and safely use specialist tools, techniques, processes, equipment and machinery including CAD/CAM.</li>   <li><input type="checkbox"/> I can make a final prototype that is accurate all parts due to accurate marking out and construction.</li>   <li><input type="checkbox"/> I can make a final prototype that meets all of the needs, wants and values of the user.</li>   <li><input type="checkbox"/> I can make a prototype that meets all of my specification points.</li>   <li><input type="checkbox"/> I can make a prototype that uses a range of skills and techniques including CAD/CAM.</li> </ul>
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