

Materials		
Overarching Topic:		
What has come before and what comes later:	<p>Mixed prior experience from primary schools. Most students would have completed an acrylic keyring (abrading techniques) and a wooden bearing maze game (Tenon saw/butt joints) during a 1 hour transition lesson in year 5 and year 6. Students will rotate each term to experience materials, graphic materials and food technology.</p> <ul style="list-style-type: none"> <li>Materials rotation – students develop knowledge of materials and processes and demonstrate skill producing a board of skills.</li> <li>Graphic materials - students develop knowledge of materials and processes and demonstrate skill producing a range of graphic products (blockhead character and packaging).</li> <li>Food Technology – Students to develop knowledge of food hygiene, safety, preparation and demonstrate practical skills.</li> </ul>	
	Core	Extension
The Big Questions (What questions will students be able to answer upon mastery of the topic?)	<ul style="list-style-type: none"> <li>What is the importance of the health and safety at work act?</li> <li>What are the characteristics of a softwood tree?</li> <li>Can you demonstrate and explain how to produce a mitre joint with skill and precision?</li> <li>Demonstrate and explain how to produce a finger joint with skill and precision?</li> <li>What are the environmental impacts of using plastics?</li> <li>What is an alloy, what is an alloy and why do we have them?</li> <li>Demonstrate and explain how to use a Coping saw correctly and with precision?</li> <li>Demonstrate and explain how to use a Tenon saw correctly and with precision?</li> <li>Demonstrate and explain how to use a scroll saw correctly and with precision?</li> </ul>	<ul style="list-style-type: none"> <li>Name a specific wood/metal/plastic and describe its characteristics.</li> <li>Be able to explain a suitable real life application of processes covered. E.g. mitre joint for a picture frame, Pewter casting for jewellery.</li> <li>Can you demonstrate/describe the process of changing a drill bit on a pillar/bench drill or hand drill?</li> <li>Can you identify how products in the classroom or around the home have been manufactured and what materials have been used and why?</li> </ul>

	<ul style="list-style-type: none"> <li>• Demonstrate and explain how to join two pieces of sheet metal together using a pop rivet gun?</li> <li>• Demonstrate and explain how to you would finishing the edges of cut acrylic to a high standard?</li> <li>• Demonstrate/describe the process of producing a lap joint with some precision.</li> <li>• Demonstrate/describe the process of producing a lap joint with some precision.</li> </ul>	
	<i>Skill/Technique</i>	<i>How students will develop and demonstrate this</i>
<i>Key skills</i>	<i>Using tools accurately and for the correct process</i>	<ul style="list-style-type: none"> <li>• By practicing a range of processes and producing a skills board to reflect the skills taught.</li> <li>• Knowledge evidenced through Q&amp;A and on worksheets</li> </ul>

<b>Graphic Materials</b>		
<i>Overarching Topic:</i>		
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	<i>Core</i>	<i>Extension</i>
<i>The Big Questions (What questions will students be able to answer upon mastery of the topic?)</i>	<ul style="list-style-type: none"> <li>Why do designers “render” a drawing?</li> <li>What is meant by “over packaging” and why do we as a society need to avoid it?</li> <li>Why is it important to do a “quality check” on products in the factory?</li> <li>What are the advantages of using CAD when designing?</li> <li>What are the disadvantages of CAD?</li> <li>What are the advantages of using CAM when designing?</li> </ul>	<ul style="list-style-type: none"> <li>What are the advantages of using nets for packaging?</li> </ul>

	<ul style="list-style-type: none"> <li>• What are the disadvantages of CAM? (employer/employees)</li> <li>• When would perspective drawing be favoured over isometric drawing?</li> <li>• What is a “micro plastic” and why are they bad?</li> <li>• Which is better, a plastic bag or a paper bag? Why?</li> <li>• Why do printers use CMYK rather than RGB?</li> <li>• Explain the functions of packaging. There are 6 things to consider.</li> <li>• Demonstrate and explain how to draw accurate shapes to the correct size using 2D design?</li> </ul>	
	<i>Skill/Technique</i>	<i>How students will develop and demonstrate this</i>
<i>Key skills</i>	<i>Using tools accurately and for the correct process</i> <i>Use of Desk Top Publishing</i>	<ul style="list-style-type: none"> <li>• <i>By practicing a range of processes and producing a range of promotional products to reflect the skills taught.</i></li> <li>• <i>Knowledge evidenced through Q&amp;A and on worksheets</i></li> </ul>

Food		
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	Core	Extension
The Big Questions (What questions will students be able to answer upon mastery of the topic?)	<ul style="list-style-type: none"> <li>Explain and demonstrate the safe cutting techniques for a variety of shaped fruit/vegetables.</li> <li>Why is a protein so important in our diet?</li> <li>Why do we need carbohydrates?</li> <li>What personal hygiene rules should be followed by food workers?</li> <li>Explain and demonstrate how to use the hob safely.</li> <li>Explain and demonstrate how to use the grill safely.</li> <li>Explain and demonstrate how to use the Oven safely.</li> <li>Explain the difference between best before and use by labelling.</li> <li>Explain what food categories would form a balanced.</li> <li>Explain the effects on the body of an unbalanced diet.</li> </ul>	<ul style="list-style-type: none"> <li>How do nutrients aid growth and repair?</li> </ul>

	<i>Skill/Technique</i>	<i>How students will develop and demonstrate this</i>
<i>Key skills</i>	<i>Skill – Use of equipment safely and skilfully</i>	<ul style="list-style-type: none"><li><i>• Quality products produced</i></li></ul>