



Subject: DT
Module 1 Pewter Casting

Overarching Topic:			
<p>Why is this topic being studied at this time?</p> <p>How does it fit into the wider subject curriculum?</p>	<p>Students will embark upon this project towards the end of their KS3 experience, giving them a real opportunity to showcase the skills and knowledge they have acquired over the past two years. From studying different cultures and how they use products to symbolise different meanings, to biological evolution and how this can inspire design, the pewter casting project will provide students with an opportunity to create their own headphone wrap.</p> <p>This project will require students to perform each part of the design process; from sketching initial ideas, researching and understanding materials theory to aid in development, creating a logical flowchart of manufacture specification, technical drawing and product evaluation, students will have a real chance to create something they can be truly proud of.</p>		
	Critical	Core	Pinnacle
<p>The Big Questions (What questions will students be able to answer upon mastery of the topic?)</p>	<ul style="list-style-type: none"> ○ How can I communicate my design ideas? ○ What is biomimicry? ○ What are the benefits of a headphone wrap? ○ What are the different categories of metals? ○ What makes a safe working environment in a workshop? ○ Can I use appropriate cutting/shaping/finishing tools with metal? ○ What skills have I improved? 	<ul style="list-style-type: none"> ○ What other techniques can I use to communicate my design ideas? ○ Can I take inspiration from spider's webs and bird nests to design my own headphone wrap? ○ Can I categorise specific metals based on their working properties? ○ How can I ensure a logical workflow when manufacturing my product? ○ Can I identify and use the appropriate tools for cutting and shaping metals? ○ Can I identify and use appropriate finishing methods with metals? ○ Can I critically evaluate my final outcome and suggest modifications? 	<ul style="list-style-type: none"> ○ What will the next step be in biological evolution? How will these evolutionary advancements be adopted by product designers? ○ Can you redevelop your design using a different category from the biological classification system? ○ Can I use engineering drawing techniques to demonstrate different perspectives of my design?
<p>The Key Skills/Techniques</p>	<p>The sophistication and application of skills will become more advanced as students' progress through the critical, core and pinnacle knowledge.</p>		
	<p>Skill/Technique</p>	<p>How will this skill be developed?</p>	

	Sketching	Building on sketching experiences from previous projects, students will use these techniques to communicate their design ideas.
	Presenting written theory notes	Sharing high expectations of book work.
	Researching and reading of extracts for comprehension	Students will be given biomimicry resources and case studies to research and draw conclusions from.
	Practical workshop skills: cutting, filing, sanding, casting, buffing.	Demonstrations of how to use each tool/process. Supporting homework tasks.
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