

CURRICULUM MAP- Year 9 Phone Holder

Resistant Materials: Throughout their Year 9 rotation students will continue to develop their working knowledge of materials, they will follow the design process in order to manufacture a phone holder. Students will also acquire new skills and knowledge surrounding the use of CAD/ CAM and electronics within their project.



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						EOR Assessment Point
						<i>Practical Assessment</i>
						<p>Key Disciplinary Knowledge</p> <p>Health and safety Cutting techniques Marking out Joining techniques Finishing techniques Hand tools Fixed equipment Use of CAD/CAM Working electronic circuit Soldering</p> <p>Key Concepts</p> <p>Students will be assessed on their ability to demonstrate the correct health and safety throughout the project, demonstrate the correct and confident use of tools and equipment and the overall quality of their finished product.</p>
					<p>Rotation Weeks 9 and 10 19 28 and 29 38 and 39</p> <p>Overarching unit intent:</p> <p>Manufacture</p> <ul style="list-style-type: none"> • Product assembly • Finishing Techniques <p>Manufacture:</p> <p>Students will develop skills and confidence using a range of basic hand tools and adhesives to assemble their phone holder.</p> <p>Students will develop skills and confidence using a range of finishing techniques such as paints, varnish and stains. Specific health and safety in relation to basic hand tools and adhesives used.</p> <p>Evaluation</p> <ul style="list-style-type: none"> • Literacy skills • Further modifications • Design evolution • Product Testing <p>Evaluation:</p> <p>Students will use literacy skills to evaluate their practical work. Students will use the CAFÉQUE technique to support them in completing this task. Students will learn the importance of evaluation</p>	
				<p>Rotation Weeks: 7 and 8 17 and 18 26 and 27 36 and 37</p> <p>Overarching unit intent:</p> <p>Manufacture</p> <ul style="list-style-type: none"> • Manufacture (CAD/CAM) • Manufacture- Electronic circuits <p>Manufacture:</p> <p>Students will develop skills and confidence using computer aided design (CAD) and computer aided manufacture (CAM) to manufacture their Phone Holder. Specific health and safety in relation to tools and equipment and the use of computer aided design (CAD) and computer aided manufacture (CAM)</p> <p>Students will develop skills and confidence using a range of tools to produce the electronic circuit for their phone holder . Specific health and safety in relation to the use of soldering irons, wire strippers and pliers.</p> <p>Careers</p> <p>Self Employed Designer Makers</p>	<p>Rotation Weeks: 5 and 6 15 and 16 24 and 25 34 and 35</p> <p>Overarching unit intent:</p> <p>Manufacture</p> <ul style="list-style-type: none"> • Manufacture (Tools and Equipment) <p>Manufacture:</p> <p>Students will develop confidence using a range of tools and equipment to premanufacture their phone holder. Specific health and safety in relation to tools and equipment.</p> <p>Careers</p> <p>CAM Engineers</p> <p>Catholic Social Teaching</p> <p>Solidarity Dignity of Work and Participation</p>	
	<p>Rotation Weeks: 3 and 4 13 and 14 22 and 23 32 and 33</p>	<p>Assessment Point: Summative or AFL</p>	<p>Overarching unit intent:</p> <p>Literacy Assessment</p> <p>Key disciplinary knowledge</p> <p>Design brief Analysis Aesthetics Function Plywood Acrylic Comb Joint Specification Vector Computer Aided Design (CAD)</p> <p>Key Concepts</p> <p>Students will be assessed on the correct spelling and their understanding of key vocabulary.</p>	<p>Rotation Weeks: 1 and 2 11 and 12 20 and 21 30 and 31</p> <p>Overarching unit intent:</p> <p>Health and safety in the workshop.</p> <p>Students will learn the importance of health and safety in the Resistant Materials workshop including health and safety rules and hazard signs and symbols.</p> <p>Research</p> <ul style="list-style-type: none"> • Task analysis • Product analysis • Materials research 	<p>Overarching unit intent:</p> <p>Drawing and Design Techniques</p> <ul style="list-style-type: none"> • 20TH Century Design Movements • Generate design ideas • Final Design • Annotation <p>Design:</p> <p>Students will generate a range of ideas for their phone holder. Students will learn how to draw in isometric as well as how to annotate and colour render. Students will use the CAFÉQUE technique to annotate their designs.</p>	

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<p>• Specifications</p> <p>Research: Students will develop their literacy skills by writing a design specification for the product they want to make. Students will do this by using the technique CAFEQUE: Construction Aesthetics Function Ergonomics Quality User Environment</p> <p>Careers Product Developer</p> <p>Catholic Social Teaching Dignity Common Good Option for the Poor</p>	<p>Careers CAD designer</p> <p>Catholic Social Teaching Common Good</p>			<p>Catholic Social Teaching Solidarity Dignity of Work and Participation</p>	<p>through discussions around product evolution.</p> <p>Careers Assembly Engineer</p> <p>Catholic Social Teaching Dignity Common Good Solidarity Dignity of Work and Participation</p>	
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