## CURRICULUM MAP- Year 9 USB Lamp

Resistant Materials: In Year 9 students will develop and continue to enhance their knowledge of technological drawing techniques. They will also complete a design and make project using and developing knowledge and manufacturing techniques acquired in Year 7 and 8 as well as acquire new skills and knowledge surrounding the use of CAD/ CAM within their project.



ase of CADY CAM Within their proj							
							EOR Assessment Point
							Practical Assessment
						Rotation Weeks	Key Disciplinary
						9 and 10	<u>Knowledge</u>
						19	
						28 and 29	Health and safety
						38 and 39	Cutting techniques
				Rotation Weeks:	Assessment Point:	Overarching unit	Marking out Joining techniques
				7 and 8	Summative or AFL	<u>intent:</u>	Finishing techniques
				17 and 18		Evaluation	Hand tools
				26 and 27		Students will learn	Fixed equipment
				36 and 37		information around the	Use of CAD/CAM
			Rotation Weeks:	Overarching unit	Design Assessment	key topics of:	Working electronic circuit
			5 and 6	intent:	Var. diamintinam.	Evaluation     Manufacture	Soldering
			15 and 16 24 and 25	Manufacture Students will learn	Key disciplinary knowledge	Students will learn	
			34 and 35	information around the	Isometric Final Design	information around the	<u>Key Concepts</u>
	Rotation Weeks:	Assessment Point:	Overarching unit	key topics of:	Colour rendering	key topics of:	
	3 and 4	Summative or AFL	intent:	Manufacture-	Annotation	Assembly	Students will be assessed
	13 and 14	34	Manufacture	Electronic circuits		Finishing techniques	on their ability to
	22 and 23		Students will learn	Manufacture:	Key Concepts	Evaluation of	demonstrate the correct
	32 and 33		information around the	Students will be	Students will be	products and processes	health and safety throughout the entirety of
Rotation Weeks:	Overarching unit	Literacy Assessment	key topics of:	completing a range of	assessed on the	Manufacture:	their project, demonstrate
1 and 2	<u>intent:</u>		Design and	practical tasks and	presentation of their	Students will be	the correct and confident
11 and 12	Drawing and Design	Key disciplinary	Manufacture	activities which will	work, their creativity	completing a range of	use of tools and
20 and 21	Techniques	<u>knowledge</u>	(CAD/CAM)	develop their skills in	and innovation, their	practical tasks and	equipment and use a
30 and 31	Students will learn	Design Brief	Manufacture:	working with a range of	use of technical	activities which will	range of techniques and
Overarching unit	information around the	Analysis	Students will be	tools and equipment in	drawing skills	develop their skills in working with a range of	processes to cut, join and
intent:	key topics of:	Aesthetics	completing a range of	a work shop environment.	(isometric), colour rendering and the	tools and equipment in	finish their lamp, their
Research Students will learn	<ul><li>Generate design ideas</li><li>Final Design</li></ul>	Function Softwood	practical tasks and activities which will	Students will learn	quality of their	a work shop	confidence and ability in
information around the	Annotation	Ferrous	develop their skills in	practical information	annotation.	environment.	the assembly of a working
key topics of:	Drawing:	Finger Joint	working with computer	around the key topics	351600111	Evaluation:	electronic circuit.
Task analysis	orthographic	Specification	aided design (CAD) and	of:		Students will evaluate	
Product analysis	Design:	Isometric	computer aided	•Electronic		their work throughout	
Materials research	Students will generate	Computer Aided Design	manufacture (CAM)	components		the practical process	
Specifications	ideas for their USB	(CAD)	Students will learn	Circuit diagrams		and equally at the end	
Research:	Lamp creating solutions		practical information	•Soldering		of the manufacture for	
Students will develop	to their written	Key Concepts	around the key topics	Students will:		the product. This	
their skills in writing a	specification. Design	Students will be	of:	• In practical sessions,		requires students to be	
list of design	techniques will be	assessed on the correct	Construction methods	develop skills,		able to be self-critical as	
requirements	shown through the use	spelling and their	Students will:	techniques and		well as suggest	
(specification) for their	of 3D design as well as			processes in relation to		methods for improving	

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product following a set	how to annotate and	understanding of key	A la augustical agasis as	working with a range	 both application and	
		J ,	• In practical sessions,	of materials.		
design brief. This will require students to	render a design idea.  Students will learn	vocabulary.	develop their ability to use specialist technical	In practical sessions,	skills. Students will:	
•			•	•		
consider a range of	theoretical and		equipment.	develop their ability to	• In practical sessions,	
areas including design,	practical information		• In practical sessions,	use specialist technical	develop skills,	
function, materials,	around the key topics		develop their	equipment.	techniques and	
user etc.	of:		understanding of	• In practical sessions,	processes in relation to	
Students will use a	•Drawing in isometric.		health and safety and	develop their	completing their final	
range of reading	Students will:		specific regulations for	understanding of	product.	
strategies:	• In practical sessions,		working with tools and	health and safety and	<ul> <li>In practical sessions,</li> </ul>	
Breakdown	develop skills,		equipment	specific regulations for	develop their ability to	
information	techniques and		Through practical	working with tools and	use specialist technical	
<ul> <li>Visualisation</li> </ul>	processes in relation to		sessions,	equipment	equipment.	
Learning new	drawing.		independently build	Through practical	<ul> <li>In practical sessions,</li> </ul>	
vocabulary	• In practical sessions,		their confidence and	sessions,	develop their	
Prediction	develop their ability to		resilience levels as they	independently build	understanding of	
• Infer	use specialist technical		work with specific	their confidence and	health and safety and	
• Form opinions	equipment.		materials.	resilience levels as they	specific regulations for	
Writing skills will be				work with specific	working with tools and	
developed in lesson				materials.	equipment	
and through home					Through practical	
learning and					sessions,	
assessment tasks.					independently build	
Students will be given					their confidence and	
opportunities to					resilience levels as they	
complete a range of					work with specific	
focused extended					materials.	
writing tasks as well as						
opportunities to					Students will use a	
develop oracy via					range of reading	
discussions and					strategies:	
debate.					Breakdown	
debate.					information	
					Visualisation	
					Learning new	
					vocabulary	
					Prediction	
					• Infer	
					Form opinions	
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					developed in lesson	
					and through home	

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			learning and	
			assessment tasks.	
			Students will be given	
			opportunities to	
			complete a range of	
			focused extended	
			writing tasks as well as	
			opportunities to	
			develop oracy via	
			discussions and debate.	