

Mulberry Academy Woodside (KS3 Design & Technology) Curriculum Overview 2023 - 2024

Curriculum intent statement:

In Design & Technology at Mulberry Academy Woodside, we encourage our learners to become creative problem-solvers, equipped with the skills and knowledge to thrive in an ever-evolving world. We believe in fostering a passion for innovation, sustainability and a practical application of design principles in the disciplines of Product Design, Textiles, Electronics and Food. This is achieved through hands-on experiences and interdisciplinary learning, allowing learners to develop their critical thinking, communication, collaboration and problem-solving skills. Our curriculum is designed to cultivate curiosity, ignite imagination, and instil an indelible appreciation for the role of design in shaping the world around us.

KS3		AUTUMN TERM		SPRING TERM		SUMMER TERM	
		TERM 1A	TERM 1B	TERM 2A	TERM 2B	TERM 3A	TERM 3B
YEAR 7	7 Phone Stand Project Investigation, Design and Evaluate: Investigating material properties: Thermosetting & Thermoplastics		Wall Hanging Project Investigation, Design and Evaluate: Investigating material properties: Natural & Synthetic Fibres		Investigation, Design Investigating material Boards		
		Designing purposeful, functional, appealing products for themselves based		Designing purposeful, functional, appealing products for themselves and other users based on design criteria.		Exploring and evaluation products.	
		on design criteria. Generating, developin communicating ideas	-	Generating, developir communicating ideas	ng, modelling and	Designing purposeful, appealing products fo other users based on	r themselves and
		talking, drawing, temp	lates, mock-ups	talking, drawing, temp	olates, mock-ups	Generating, developing	ng, modelling and

	and, where appropriate, information and communication technology. Health & Safety in the Workshop.	and, where appropriate, information and communication technology. Health & Safety in the Workshop.	communicating ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.
	Using a specified range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]. Evaluating ideas and products against design criteria. Selecting from and using a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining	Using a specified range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]. Evaluating ideas and products against design criteria.	Health & Safety in the Workshop. Using a specified range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]. Evaluating ideas and products against design criteria.
	and finishing]. Selecting from and using a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.		design criteria.
SKILLS	Make: -Problem solvingDesigning through sketching and modellingInnovation through iterative designUnderstanding different ways of making through prototypingFinishing process to achieve a high-quality outcomeUsing different processes i.e. Line BendingHealth and safety within the workshop.	Make: -Problem solvingDesigning through sketching and modellingInnovation through iterative designUnderstanding different ways of making through prototypingFinishing process to achieve a high-quality outcomeUsing different processes i.e. Embroidery, Applique and Reverse Applique, Couching and Machine sewing.	Make: -Problem solvingDesigning through sketching and modellingInnovation through iterative designUnderstanding different ways of making through prototypingFinishing process to achieve a high-quali outcomeUsing different processes
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-Health and safety within the workshop.

-Selecting the correct tools/machines in

making the outcome.

YEAR 8	KNOWLEDGE	Select tools, processes, equipment, and machinery precisely. Finishing woods with different finishes. Investigation, Design and Evaluate: Investigating material properties: Metals Designing for others Exploring and evaluating a range of existing products. Designing purposeful, functional, appealing products for themselves and other users based on design criteria. Generating, developing, modelling and communicating ideas through	Investigation, Design and Evaluate: Investigating material properties: Natural & Synthetic Fibres Fibre to fabric Exploring and evaluating a range of existing products. Designing purposeful, functional, appealing products for themselves and other users based on design criteria. Generating, developing, modelling and	Investigation, Design and Evaluate: Investigating material properties: Papers & Boards Exploring and evaluating a range of existing products. Designing purposeful, functional, appealing products for themselves and other users based on design criteria. Generating, developing, modelling and communicating ideas through talking, drawing, templates, mock-ups
		talking, drawing, templates, mock-ups and, where appropriate, information and communication technology. Health & Safety in the Workshop. Using a specified range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]. Evaluating ideas and products against design criteria.	communicating ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology. Health & Safety in the Workshop. Using a specified range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]. Evaluating ideas and products against design criteria.	and, where appropriate, information and communication technology. Health & Safety in the Workshop. Using a specified range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]. Evaluating ideas and products against design criteria.

	SKILLS	Make:	Make:	Make:
	SKILLS	-CAD/CAM	-Embroidery	-Problem solving.
		-Casting Metal	-Applique and Reverse Applique	-Understanding user needs.
		-Problem solving.	-Tie Dye	-Designing through sketching and
		-Understanding user needs.	-Fabric Painting	modelling.
		-Designing through sketching and	-Machine sewing	-Innovation through iterative design.
		modelling.	-Problem solving.	-Prototyping.
		-Innovation through iterative design.	-Understanding user needs.	-Selecting and using tools, processes,
		-Prototyping.	-Designing through sketching and	equipment, and machinery precisely.
		-Selecting and using tools, processes,	modelling.	-Finishing process to achieve a high-quality
		equipment, and machinery precisely.	-Innovation through iterative design.	outcome.
		-Finishing process to achieve a high-quality	-Prototyping.	-Finishing woods with different finishes
		outcome.	-Selecting and using tools, processes,	Health and safety within the workshop.
		-Finishing woods with different finishes	equipment, and machinery precisely.	-Problem solving a design context into a
		Health and safety within the workshop.	-Finishing process to achieve a high-quality	real-life situation.
		-Problem solving a design context into a	outcome.	-Evaluation of outcome against
		real-life situation.	-Finishing woods with different finishes	specification.
		-Evaluation of outcome against	Health and safety within the workshop.	
		specification.	-Problem solving a design context into a	
			real-life situation.	
			-Evaluation of outcome against	
			specification.	
YEAR	KNOWLEDGE	Investigation, Design and Evaluate:	Investigation, Design and Evaluate:	Investigation, Design and Evaluate:
9		Investigating material properties: Natural &	Investigating material properties: Natural &	Investigating material properties: Papers &
		Manufactured Timbers	Synthetic Fibres	Boards
		Investigation of Design Movements	Investigation of Typography	Designing purposeful, functional,
		investigation of Besign Movements	investigation of Typography	appealing products for themselves based
		CAD/CAM	Investigation of Colour Theory	on design criteria.
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		Designing purposeful, functional,	Designing purposeful, functional,	Generating, developing, modelling and
		appealing products for themselves based	appealing products for themselves based	communicating ideas through
		on design criteria.	on design criteria.	talking, drawing, templates, mock-ups
				and, where appropriate, information
		Generating, developing, modelling and	Generating, developing, modelling and	and communication technology.
		communicating ideas through	communicating ideas through	
		talking, drawing, templates, mock-ups	talking, drawing, templates, mock-ups	Health & Safety in the Workshop.
		and, where appropriate, information	and, where appropriate, information	

	and communication technology.	and communication technology.	Selecting from and using a wide range of (Papers & Boards based) materials and
	Health & Safety in the Workshop.	Health & Safety in the Workshop.	components according to their characteristics.
	Selecting from and using a wide range of (Natural & Manufactured Timber) materials and components according to their characteristics.	Selecting from and using a wide range of (Textiles based) materials and components according to their characteristics.	Selecting from and using a range of tools and equipment to perform practica tasks [for example, cutting, shaping, joining
	Selecting from and using a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing].	Selecting from and using a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing].	and finishing]. Evaluating ideas and products against design criteria.
	Evaluating ideas and products against design criteria.	Evaluating ideas and products against design criteria.	
SKILLS	Make: -CAD/CAM -Joining timber- Finger Joints -Understanding different design movementsWriting a design specification, putting together a client profile. Researching a selecting information to use within the design process	Make: -Embroidery -Applique and Reverse Applique -Sublimation printing -Machine sewing -Writing a design specification, putting together a client profile. Researching a selecting information to use within the design process -Using Access FM to help analyse an	Make: -Writing a design specification, putting together a client profile. Researching a selecting information to use within the design process -Using Access FM to help analyse an existing productProducing a range of design ideas, review of initial, development of design ideas into a chosen design
	-Understanding what an EPA is. Using Access FM to help analyse an existing productProducing a range of design ideas, review of initial, development of design ideas into a chosen design -Making to include different manufacture	existing productProducing a range of design ideas, review of initial, development of design ideas into a chosen design -Making to include different manufacture and quality and accuracy -Finishing process to achieve a high-quality	-Making to include different manufacture and quality and accuracy -Finishing process to achieve a high-quality outcomeFinishing materials with different finishesHealth and safety within the workshopSelecting the correct tools/machines in
	and quality and accuracy	outcome.	making the outcome.

-Finishing materials with different finishes.

-Health and safety within the workshopSelecting the correct tools/machines in making the outcomeSelecting tools, processes, equipment, and machinery precisely -How to structure an evaluation referring to the specification/client and the end user. Considering a product life cycle.	-Selecting the correct tools/machines in making the outcomeSelecting tools, processes, equipment, and machinery precisely -How to structure an evaluation referring to the specification/client and the end user. Considering a product life cycle.	-How to structure an evaluation referring to the specification/client and the end user. Considering a product life cycle.
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