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	KNOWLEDGE	**Phone Stand Project** **Investigation, Design and Evaluate:** Investigating material properties: Thermosetting & Thermoplastics Designing purposeful, functional, appealing products for themselves based on design criteria. Generating, developing, modelling and communicating ideas through talking, drawing, templates, mock-ups		**Wall Hanging Project** **Investigation, Design and Evaluate:** Investigating material properties: Natural & Synthetic Fibres 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		**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	

		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. 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 wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.	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. Evaluating ideas and products against design criteria.
	SKILLS	**Make:** -Problem solving. -Designing through sketching and modelling. -Innovation through iterative design. -Understanding different ways of making through prototyping. -Finishing process to achieve a high-quality outcome. -Using different processes i.e. Line Bending. -Health and safety within the workshop. -Selecting the correct tools/machines in making the outcome.	**Make:** -Problem solving. -Designing through sketching and modelling. -Innovation through iterative design. -Understanding different ways of making through prototyping. -Finishing process to achieve a high-quality outcome. -Using different processes i.e. Embroidery, Applique and Reverse Applique, Couching and Machine sewing. -Health and safety within the workshop.	**Make:** -Problem solving. -Designing through sketching and modelling. -Innovation through iterative design. -Understanding different ways of making through prototyping. -Finishing process to achieve a high-quality outcome. -Using different processes

		Select tools, processes, equipment, and machinery precisely. Finishing woods with different finishes.		
YEAR 8	KNOWLEDGE	**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 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.	**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 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.	**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 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:** -CAD/CAM -Casting Metal -Problem solving. -Understanding user needs. -Designing through sketching and modelling. -Innovation through iterative design. -Prototyping. -Selecting and using tools, processes, equipment, and machinery precisely. -Finishing process to achieve a high-quality outcome. -Finishing woods with different finishes. -Health and safety within the workshop. -Problem solving a design context into a real-life situation. -Evaluation of outcome against specification.	**Make:** -Embroidery -Applique and Reverse Applique -Tie Dye -Fabric Painting -Machine sewing -Problem solving. -Understanding user needs. -Designing through sketching and modelling. -Innovation through iterative design. -Prototyping. -Selecting and using tools, processes, equipment, and machinery precisely. -Finishing process to achieve a high-quality outcome. -Finishing woods with different finishes. -Health and safety within the workshop. -Problem solving a design context into a real-life situation. -Evaluation of outcome against specification.	**Make:** -Problem solving. -Understanding user needs. -Designing through sketching and modelling. -Innovation through iterative design. -Prototyping. -Selecting and using tools, processes, equipment, and machinery precisely. -Finishing process to achieve a high-quality outcome. -Finishing woods with different finishes. -Health and safety within the workshop. -Problem solving a design context into a real-life situation. -Evaluation of outcome against specification.
YEAR 9	KNOWLEDGE	**Investigation, Design and Evaluate:** Investigating material properties: Natural & Manufactured Timbers Investigation of Design Movements CAD/CAM Designing purposeful, functional, appealing products for themselves based on design criteria. Generating, developing, modelling and communicating ideas through talking, drawing, templates, mock-ups and, where appropriate, information	**Investigation, Design and Evaluate:** Investigating material properties: Natural & Synthetic Fibres Investigation of Typography Investigation of Colour Theory Designing purposeful, functional, appealing products for themselves based on design criteria. Generating, developing, modelling and communicating ideas through talking, drawing, templates, mock-ups and, where appropriate, information	**Investigation, Design and Evaluate:** Investigating material properties: Papers & Boards Designing purposeful, functional, appealing products for themselves based on design criteria. Generating, developing, modelling and communicating ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology. Health & Safety in the Workshop.

		and communication technology. Health & Safety in the Workshop. Selecting from and using a wide range of (Natural & Manufactured Timber) materials and components according to their characteristics. Selecting from and using a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]. Evaluating ideas and products against design criteria.	and communication technology. Health & Safety in the Workshop. 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 practical tasks [for example, cutting, shaping, joining and finishing]. Evaluating ideas and products against design criteria.	Selecting from and using a wide range of (Papers & Boards based) materials and components according to their characteristics. Selecting from and using a 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:** -CAD/CAM -Joining timber- Finger Joints -Understanding different design movements. -Writing a design specification, putting together a client profile. Researching a selecting information to use within the design process -Understanding what an EPA is. Using Access FM to help analyse an existing product. -Producing 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 outcome. -Finishing materials with different finishes.	**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 existing product. -Producing 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 outcome. -Finishing materials with different finishes. -Health and safety within the workshop.	**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 product. -Producing 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 outcome. -Finishing materials with different finishes. -Health and safety within the workshop. -Selecting the correct tools/machines in making the outcome. -Selecting tools, processes, equipment, and machinery precisely

		-Health and safety within the workshop. -Selecting the correct tools/machines in making the outcome. -Selecting 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 outcome. -Selecting 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.