

Subject: Fashion

Year group: 8

Project intent: Develop an understanding of a range of decorative techniques and textiles processes. To use this understanding to inform a design and make task.

This project aims to cover a range of decorative techniques used in the Fashion and textiles industry. Students will also gain an understanding of sewing machine skills including safety assessments. These skills will lead in to a design and make task which will guide students not only through the design and make process, including looking at the design brief, specification and design skills but will also enable them to practise and perfect their previously learnt decorative and sewing skills and how to use them creatively.

This Unit will cover topics that are not only fundamental to progression in the Design and Technology curriculum but also the GCSE Design and Technology course. Additionally, this Unit will aim to link with subjects such as Maths and Science in order to build on students' prior knowledge). This will help students develop academic links and appreciate the wider STEM agenda.

Designing		Making		Technical Knowledge (big picture/fundamental topics)	
Designing Generating, developing, modelling and communicating ideas	D1 - You are able to explain and follow the iterative design process	Making Planning, practical skills and techniques	M1 - You are able to select appropriately from specialist tools i.e. tenon saw	Technical Knowledge (big picture/fundamental topics) Making products work	T1 - Types of materials e.g wood, metal, plastic and textiles
	D2 - Generate creative ideas using hand drawn techniques using annotated sketches: Biomimicry		M2 - You are able to select appropriately from specialist techniques and processes		T2 - Material properties
	D3 - Demonstrate the ability to present work to a high standard		M3 - You understand different materials based on their properties, such as malleability		T3 - Joining methods
	D4 - You can create an isometric drawing using basic equipment		M4 - You can explain and follow safety rules and procedures		T4 - Safety and risk assessment
	D5 - You can create an orthographic drawing using basic equipment		M5 - You demonstrate the ability to use complex materials i.e. plywood		T5 - Orthographic projection
	D6 - Compare ideas against specification to determine their success		M6 - You have demonstrated use of a broad range of processes and techniques		T6 - Isometric drawing
	D7 - Use CAD software, such as 2D design or Fusion 360, to model basic forms		M7 - You have demonstrated use of CAD/CAM to manufacture		T7 - CNC production
			M8 - You have demonstrated applying a range of finishing techniques i.e.		T8 - Scales of production
	M9 - You have demonstrated the ability to mark out accurately on different materials		T8 - Motion		
	M10 - You have demonstrated use of different joining techniques		T9 - Levers and linkages		
	M11 - You have demonstrated modifying the appearance of materials		T10 - Circuits and electronic components		
		T11 - Maths - measuring and dimensioning			
		T12 - Maths - Area and volume			

Week	Subject Topic	Key Learning points/big questions	T3 Vocab	Independent/Home learning	Linked Assessment	Resources		
Decorative techniques (3 weeks)			Paper scissors Fabric shears Pinking shears Seam rippers Pins Needles Measuring tape Tailors chalk Steam iron Heat press Sewing machine Sublimation Paper scissors Fabric shears Pinking shears Seam rippers Pins Needles Measuring tape Tailors chalk Steam iron Heat press Sewing machine Sublimation Mordant Resist dyeing Seam allowance Annotation Quantitative Qualitative Raw edge					
1	Sublimation printing Repeat pattern design using CAD – Illustrator Repeat pattern design using CAD – Illustrator	Intentions: <ul style="list-style-type: none"> - Understand what sublimation printing is and how to apply it effectively to a suitable piece of fabric. - Understand what CAD and CAM are. - Use CAD to develop a repeat pattern. Questions: Demonstration of CAD CAM sublimation printing by teacher: What is sublimation printing? How do you ensure successful application of sublimation printing? Which fabric is most suitable for sublimation printing? Why? CAD - Illustrator to produce a quick repeat print pattern What does CAD stand for? Why do we use CAD?					Knowledge organiser self-quiz: Read and revise the main knowledge from your KO, cover and write your own summary. Fill in the box to include any questions for your teacher you may have	M7: CAD/CAM Create a repeat pattern using CAD. Apply to fabric using sublimation. Exam questions related to the use of CAD/CAM when applying a repeat pattern to fabric.
2	Apply CAD sublimation print Trial hand sublimation Block printing (Water melon - teams?)	Intentions <ul style="list-style-type: none"> - Understand the advantages and disadvantages of using CAD to apply a pattern to a piece of fabric. - Understand how to accurately and effectively make and apply a 3 colour block print. Questions: What are the advantages and disadvantages of using CAD instead of by hand to create and print a repeat pattern? What is block printing? How do you create your own block print? What is the block printing process? How is this done in industry?					Knowledge organiser self-quiz: Revise the key vocabulary on your KO. Self test your understanding using the sheet provided.	M11 – Modifying the appearance of materials. Samples of block printing and sublimation printing.
3	Dyeing Tie dye sampling	Intentions <ul style="list-style-type: none"> - Evaluate the use of natural dyes and chemical dyes - Understand the best fabrics to use when dyeing - Be able to produce at least 2 tie dye techniques effectively Questions Natural Vs Chemical dyes What can be used to naturally dye fabric? Which fabrics are best for dyeing with? Why? How to dye in batch? Resist dyeing – Tie dye What is a mordant?					Knowledge organiser self quiz: Generate 10 questions from the information on your KO. Self test yourself using these questions.	T1/2: Materials M11 – Modifying the appearance of materials. Samples of dyeing and tie dye produced. Questions about cotton and polyester
Sewing machine skills (3 weeks)								
4	Sewing machine practise 1	Intentions: <ul style="list-style-type: none"> - Gain understanding of how to set up the top thread a bobbin on a sewing machine. - Gain practical experience in using a sewing machine confidently and accurately. 		Knowledge organiser self quiz: Produce a mind map of all the information you have learnt from	M1: Tools & equipment Teacher assessment of how student uses the sewing machine including setting up.			

	Sewing machine practise 2	<ul style="list-style-type: none"> - Evaluate why sewing by machine might be better than sewing by hand. <p>Questions: Why use a sewing machine over sewing by hand? What are the main parts of the sewing machine? (bobbin, top thread, spool pin, presser foot, balance wheel) What is a seam allowance? What is a bobbin? What is the most commonly used stitch on a sewing machine? What is the right and wrong side of fabric?</p>		the KO. Add knowledge you have gained from your lessons.		
5	Assessment	<p>Intentions:</p> <ul style="list-style-type: none"> - Be able to produce a high-quality plain seam - Understand what a seam is and how to neaten it. <p>Questions: What is a seam? What is a plain seam used for? How would you neaten a plain seam? What is a seam allowance on a plain seam? What are pinking shears used for? What is an over locker? How do you pin fabric? What do you do if you sew incorrectly?</p>		Knowledge organiser self quiz: Generate 10 questions from the information on your KO. Self test yourself using these questions.	M10: Joining methods M1: Tools & equipment Sample of a plain seam Step by step instructions showing how to produce a plain seam.	
	Perfecting a plain seam					
6	Patchwork samples	<p>Intentions:</p> <ul style="list-style-type: none"> - Be able to produce at least one method of patch work <p>Questions: What is patch work? What seam would be used on patchwork? How would you neaten the edges of patchwork?</p>		Complete brain dump 1 activity. Write in the box, everything you currently know about production types, both from lessons and the KO.	M10: Joining methods M1: Tools & equipment Samples of patchwork	
	Patchwork samples					
Design and Make task						
7	Rendering techniques Tonal shading Cross hatching	<p>Intentions:</p> <ul style="list-style-type: none"> - Be able to apply rendering techniques to design ideas using a variety of methods <p>Questions: What is cross hatching? What is tonal shading? How would you apply water colour effectively?</p>		Complete brain dump 2 activity. Write in the box, everything you currently know about how products are manufactured to a high quality, both from lessons and the KO.	D2/D3: Design ideas Assessment of applying rendering on initial ideas	
	Rendering techniques: Water colour					
8	Design Brief Specification Research patchwork patterns	<p>Intentions:</p> <ul style="list-style-type: none"> - Understand what the design brief and specification for this project are. - Gather research on a variety of patchwork techniques to inform design ideas - To produce a range of initial ideas that are rendered using a chosen technique. <p>Questions: What is a design brief? What are qualitative and quantitative specification points?</p>		Knowledge organiser self quiz: Produce a mind map of all the information you have learnt from the KO. Add knowledge you have gained from your lessons.	D2/D3: Design ideas Assessment of applying rendering on initial ideas	
	Creative initial ideas 1					

		What are initial ideas?			
9	Creative initial ideas 2 – evaluate against specification	<p>Intentions:</p> <ul style="list-style-type: none"> - To produce a range of initial ideas that are rendered using a chosen technique. - To evaluate your initial ideas against the specification - To understand how to use CAD to produce a manufacturing specification. <p>Questions: What do we evaluate against a specification? What are annotations? What is a manufacturing specification used for?</p>		Knowledge organiser self quiz: Generate 10 questions from the information on your KO. Self test yourself using these questions.	<p>D2/D3: Design ideas Assessment of applying rendering on initial ideas D6: Evaluation against the specification D5/T5: Orthographic drawing</p>
	Manufacturing specification – final design. Use CAD.				
10	Pattern making	<p>Intentions:</p> <ul style="list-style-type: none"> - Understand what a sewing pattern is and why it would be used. - To produce a sewing pattern for a patchwork design, adding seam allowances and markings. <p>Questions: What is a grain line? What is a seam allowance? How do I cut fabric efficiently? How do I cut fabric using a sewing pattern correctly?? What is tailors chalk?</p>		Complete brain dump 1 activity. Write in the box, everything you currently know about production types, both from lessons and the KO.	<p>T3/M10: Joining methods Assessment of pattern pieces and patchwork produced.</p>
	Cutting and preparing fabrics				
11	Sewing patchwork pieces together	<p>Intentions:</p> <ul style="list-style-type: none"> - Gain experience in using the sewing machine safely and accurately. - Understand how a plain seam is used to sew together a patchwork pattern - Understand how to finish a seam to a high standard, using the correct neatening methods. <p>Questions:</p> <ul style="list-style-type: none"> - What is a plain seam? - What is the right/wrong side of fabric? - What is the correct seam allowance for a plain seam? - What should you do if you sew something incorrectly? - How should you ensure you have finished a seam off to a high standard? - What are pinking shears? - How should I use an iron to press? 		Knowledge organiser self-quiz: Read and revise the main knowledge from your KO, cover and write your own summary. Fill in the box to include any questions for your teacher you may have	<p>T3/M10: Joining methods Assessment of pattern pieces and patchwork produced</p>
	Sewing patchwork pieces together				
12	Smart material: Thermochromic inks	<p>Intentions:</p> <ul style="list-style-type: none"> - Understand what a smart material is and be able to explain what thermochromic ink does. - Understand and be able to demonstrate how CAD can be used to produce a very simple stencil. - Be able to explain what a laser cutter is. - Be able to demonstrate how to apply paint correctly to a stencil. <p>Questions: What is a smart material? What is thermochromic? How could thermochromic be used in products? What is a stencil? How could thermochromic ink be applied to a coaster?</p>		Knowledge organiser self-quiz: Revise the key vocabulary on your KO. Self test your understanding using the sheet provided.	<p>M7 – CAD/CAM Stencil design using CAD T1/2: Material properties Knowledge of Smart materials, focusing on thermochromic ink.</p>
	Production of simple stencil on CAD				
	Stencil practise				
	Make sure stencil is complete and emailed.				

		What effect will a hot drink have to the thermochromic ink when applied to a coaster? How do you apply paint accurately to a stencil?			
13	Complete patchwork Apply stencil to coaster using thermochromic ink.	<p>(teacher must prepare small amount of thermochromic ink for students to use. Stencils will need to be laser cut for these lessons)</p> <p>Intentions:</p> <ul style="list-style-type: none"> - Demonstrate how to accurately apply thermochromic ink to a stencil. - Gain experience in using the sewing machine safely and accurately. - Understand how a plain seam is used to sew together a patchwork pattern - Understand how to finish a seam to a high standard, using the correct neatening methods. <p>Questions: How should a stencil be applied accurately? What happens when a mug is placed on top of the thermochromic ink?</p>		Knowledge organiser self quiz: Generate 10 questions from the information on your KO. Self test yourself using these questions.	<p>M7 – CAD/CAM Stencil design using CAD T1/2: Material properties Knowledge of Smart materials, focusing on thermochromic ink.</p>
	Assessment				
14	Sew back and front of coaster together and finish	<p>Intentions:</p> <ul style="list-style-type: none"> - Demonstrate how to use the sewing machine safely and accurately when sewing the front and back of your coaster together. - Demonstrate understanding of neatening techniques when using pinking shears to neaten raw edges of the coaster. - Understand how to evaluate and test against the specification. - <p>Questions: What are pinking shears? What is a raw edge? How could we neaten the edge differently? Why is it important to evaluate and test against the specification?</p> <p>NEED EXTENSION TASK?</p>		Knowledge organiser self quiz: Produce a mind map of all the information you have learnt from the KO. Add knowledge you have gained from your lessons.	<p>T3/M10: Joining methods Assessment of final coaster</p>
	Evaluation / testing against the spec				

In the event of a full or partial closure of the year group, it will not be possible to teach all aspects of this course. Flexibility will need to be exercised by teachers and some lessons will be moved around.

NC Strand Key:

D Design

M Make

E Evaluate

TK Technical Knowledge