



Topic Name	Term	Skills Developed	Next link in curriculum	Other Notes
A3 tote bag Project: Exploring bagging out Construction and fabric decoration Techniques and Methods	Spring	1. Research and Design Students will be tasked with designing their own Tote bag made from woven fabric. They will be directed in the size, which should fit their A3 folder in, but they should also consider following in their designs: Functionality: What will the bag be used for? Does it need a lining, pockets, or handles? Size and Proportions: What are the dimensions and overall proportions of the bag? Seams: How will they join the bag together? Examples include flat seam, French seam, overlocked seam. Students should sketch their designs, thinking critically about how they will be constructed. Design Ideation: Brainstorming and sketching out initial ideas for the bag design. Pattern cutting: Learning how to cut a pattern from pattern paper in an economical way. Prototyping: Creating simple models or drawings to visualize the final product before construction. Planning and Sequencing: Mapping out the steps required to construct the bag efficiently, considering the order of construction and time management. Problem-Solving: Addressing challenges that arise during the design or construction process, such as adjusting measurements or fixing mistakes.	Materials and Their Properties The project provides students with hands-on experience in working with woven fabrics, allowing them to explore their properties such as durability, stretch, thickness. This knowledge combined with that from the previous practical project should enable them to select a fabric that is suitable for their own NEA project, Forces and Stresses Students learn about forces that impact the durability and functionality of the bag, such as tension in different seams and fastenings. This links to theory of forces and stresses. This project integrates well into the GCSE Design and Technology framework by providing opportunities to develop and assess key skills: Understanding material properties and selection. Applying manufacturing techniques like seam construction, cutting, and finishing. Using specialist tools safely and correctly.	We aim for learners to actively engage in practical lessons that build their ability to evaluate and select suitable materials and processes for their own future projects. These hands-on experiences, combined with theoretical knowledge, will not only enhance their understanding but also contribute to the NEA portfolio. Evidence from both practical work and supporting theory sheets will be included, demonstrating their decision-making and technical skills." Students will use their A3 books to complete their work in.



	Experimenting with different decorative techniques: Students to try out different ways of decorating their bags-development. This could include printing and dyeing their fabric, using procreate to design a print to add to the bag front or lining, using the sublimation printer or trying out applique Manufacturing: decorative techniques: Demonstrations on how to create each decorative technique as each student comes to them. Discussions on why each one may be suitable or be rejected. Tools: Demonstration of the different tools that do each job, i.e. overlocker, sewing machine, sublimation printer, iPad etc. Choice of fabric: students to select a fabric that is suitable for the purpose of a tote bag, discussion on how a woven fabric is different from a knitted one, students to carry out an investigation into their choice of fabric. Students to consider the choice of handles for their bags, encouraged to experiment with them to select the most appropriate for their product. Practical Skills: Ability to construct bag, paying particular attention to the pockets of the bags which are difficult to insert. Students encouraged to include an inside pocket or make the product reversible, to challenge themselves to create something that it outside of comfort zone. Students shown how to top stitch, how to include this to create a design statement in any product. Demonstrations given throughout construction of bags. Time Management: Estimating and planning the time required for each stage of the construction process.	Demonstrating iterative design through planning, prototyping, and refining their work. Developing technical proficiency and creativity in both design and construction. This hands-on project not only reinforces theoretical learning but also encourages learners to engage in practical problem-solving, design thinking, and craftsmanship, all of which are critical for success in the GCSE DT course Risk Assessment: Assessing risks associated with design and technology tasks. Conducting risk assessments helps students develop a safety-conscious approach, which they have to evidence in their NEA production plans. Tolerance and Precision: Accuracy in Manufacturing: Discussing tolerances and precision reflects the curriculum's focus on accurate measurements and high-quality manufacturing processes.	This project gives students the opportunity to use different fabrics that have very different properties, it allows them to investigate which fabrics they prefer to work with and question which ones you would use for each project.
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		Tool Identification: Compiling and understanding the list of tools needed for the construction process. Quality Control and Assurance: Implementing and checking for quality standards throughout the process to ensure accuracy and reliability. Learning that they are the Quality controllers with their own projects and the importance of this. Evaluation: Thorough evaluation of all aspects of the bag in preparation for GCSE next year. Students to look at design, manufacture, materials, decorative techniques, suitability for client, testing, costing, redesign and recommendations for future modifications. Evaluation should include a variety of images. Analytical Thinking: Evaluating and refining the construction method to ensure it meets required standards and performs effectively.	Managing a Project: Planning and executing a practical task, including problem-solving, aligns with the curriculum's focus on designing and making products within a specified context. Assessment Criteria: Learners will be assessed on the accuracy of their measurements and cuts, the quality of their joints, the neatness of their assembly, and their ability to follow health and safety practices. They will also be evaluated on their ability to work independently and solve problems during the construction process.	
Construction of Hoodie, with decorative detail inspired by Zaha Hadid	Autumn	1. Research and task analysis Learners will conduct both primary and secondary research into the designer Hadid and into existing products. Understanding Key Features: Learners will identify and analyse the features that contribute to a well-made Hoodie and what makes them attractive to the customer/ consumer. Students will investigate different price points and qualities.	Research and Analysis: It involves conducting primary and secondary research, aligning with the curriculum's emphasis on analytical skills. Understanding User Needs: It addresses how design affects user groups,	



	Research Skills: Learners will be taught how to conduct comprehensive primary research (such as surveys, interviews, and observations) and secondary research (such as reviewing existing literature and case studies) to gather data on educational toys. Drawing Conclusions: Learners will analyse their research findings to draw well-supported conclusions about the effectiveness of various hoodies and their designs 2. Product Analysis and legislation Learners will apply the ACCESS FM framework to critically analyse commercially produced hoodies. This approach will help them assess the following aspects: • Aesthetics: Evaluate the visual appeal and design of the hoodie. Consider factors such as colour, texture, and overall appearance. • Cost: Examine the cost implications of manufacturing the hoodie, including materials and production processes. • Customer: Identify the target audience for garment and assess whether the design meets their needs and preferences. • Environment: Analyse the environmental impact of the materials used and the sustainability of the production process.	focusing on cognitive development in educational toys. Design Evaluation: It complements the curriculum's requirement to evaluate designs against criteria. Creativity and Innovation: It encourages creative thinking about effective design in educational contexts. Analytical and design skills: Integrating the ACCESS FM framework and safety/legal considerations into the KS4 DT curriculum enhances students' analytical and design skills by providing a detailed approach to evaluating products. It aligns with the curriculum's focus on advanced product analysis, in-	By integrating these considerations into their analysis, learners will gain a comprehensive understanding of the factors influencing the design, production,
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	• Safety: Assess the safety features including any potential hazards and the safety measures implemented. • Function: Evaluate how well the hoodie fulfils its intended purpose and whether it meets functional requirements. • Manufacture: think about how the product could have been made. Additionally, learners will review the type of packaging used to house the product, considering its effectiveness in protecting the product and its impact on the environment. 3. Materials Management To support the choice of fabrics, learners will explore the properties and applications fleece and sweatshirt materials, alongside a revisitation of manmade and natural fibres. This will be integrated with practical demonstrations of cutting, shaping, and joining techniques, with a strong emphasis on materials management, sustainability, and selecting appropriate tools and processes as part of the design and make process • Material Identification and Selection • Cutting and Shaping Techniques • Joining Methods • Tool Selection and Management • Materials Management • Problem-Solving and Adaptability • Understanding Sustainability	depth design and making skills, and adherence to safety and legal standards. By exploring aesthetics, cost, functionality, and environmental impact, students gain practical insights that are crucial for their NEA and examinations. This approach helps them develop a comprehensive understanding of real-world design challenges and prepares them for both practical and theoretical assessments. Term 1: Material Properties (Theory) → Textile Investigation supports this through exploration of natural and synthetic fibres. Term 2-3: Practical Skills (Cutting, Shaping, Joining) → Investigation builds	and regulation of wooden building boxes.
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	These skills are crucial for progressing in Design and Technology, particularly in material-based projects. 4 -10 Practical work Learners will accurately measure and cut fabrics using a premade / commercial pattern. Learners will explore when they need to add decoration to their product and the assembly order. They will also Implement the joining techniques that they have experimented with earlier and think about how they might finish a seam. Emphasis will be placed on quality control, ensuring that each piece fits together well while maintaining a high standard of craftsmanship. • Measurement and marking out • Cutting techniques • Health and safety awareness • Decorative techniques • Quality control and precision • Problem solving and adaptability • Project and time management • Reflection and evaluation 8. Evaluation Students will evaluate their product through testing - wearing and through customer feedback. they will follow the process that GCSE projects take to become familiar with how this works. They will use the guidance sheet given to help lay out their work and use A3 sketchbooks.	cutting, shaping, and jointing techniques. Ongoing: Design and Make Tasks → Knowledge of material properties and practical skills are applied in larger design projects. Year 11 NEA Prep: Investigation helps refine the skills needed for the NEA assessment, particularly in tool use, materials management, and sustainability considerations. This sequencing ensures that the fabric investigation serves as a key practical learning moment that builds towards more complex tasks and assessments in the KS4 curriculum. Link to Curriculum: Costing and budgeting are integral to the curriculum's focus on commercial viability and practical constraints in design and manufacturing. Resource Efficiency and Decision-Making: Understanding how to use resources efficiently aligns with the curriculum's	
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			goals of effective planning and management in the design and production process. Project Planning and Timeline Management: Measurement and Marking Out → Precision in GCSE Projects Cutting Techniques → GCSE Material Processing Health and Safety Awareness → GCSE Compliance with Workshop Safety Surface Preparation and Finishing → GCSE Product Development Joinery and Construction → Advanced GCSE Project Assembly Problem Solving and Adaptability → GCSE Design Iteration Project and Time Management → GCSE NEA Execution Reflection and Evaluation → GCSE Evaluation and Design Refinement	Students will connect their KS4 projects to the KS3 souvenir light project by examining how they designed objects for commercial purposes and reflecting on the cultural appreciation of materials, design, imagery, and manufacturing.
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