



Curriculum Intent

Year 7 Design Technology Product Design/ Textiles



PRIORITIES IN WHOLE SCHOOL CURRICULUM INTENT

- Enjoyment of learning
- Knowledge acquisition and recall
- Extensive vocabulary
- Effective communication through writing, speaking & listening, and use of technology
- Numeracy
- Critical evaluation of information
- Enterprise and problem-solving
- Working with others

KEY QUESTIONS TO CONSIDER

- 1. Why has content been selected?** Content has been carefully selected to provide students with both practical skills and a deeper understanding of cultural and creative expression through design. The "Wish Light" project focuses on structures, material properties, and lighting design, while also introducing students to cultural symbolism by incorporating personal or cultural themes into the design. The textiles project, on the other hand, highlights fabric manipulation, pattern-making, and stitching techniques. These projects build foundational knowledge in materials, craftsmanship, and creativity, while encouraging students to think critically about the functional and aesthetic aspects of design.
- 2. Does learning provide sufficient challenge?** The projects are designed to be accessible yet challenging for all learners. The "Wish Light" project challenges students to think about structural integrity, aesthetics, and symbolism, while encouraging them to solve design problems creatively. The textiles unit provides challenges by introducing a range of techniques, from simple hand stitching to more complex fabric manipulation and 3D textile creation. These projects can be scaled in complexity to meet the needs of different learners, ensuring all students are appropriately challenged as they develop their skills.
- 3. Why is learning sequenced in this way?** The sequence of the curriculum is intentional, allowing students to build on prior knowledge and skills. The "Wish Light" project, for example, introduces fundamental principles of structure and design early on, which students can later apply in more complex tasks such as designing with textiles. The textiles project builds on this foundation, introducing new materials and techniques while encouraging creative exploration. As students progress through the projects, they gain increasing independence and confidence, enabling them to tackle more advanced design challenges over time.
- 4. How is learning sequenced or spaced to promote long-term memory?** The curriculum uses spaced repetition by revisiting key concepts such as material properties, design principles, and cultural relevance in different contexts throughout the year. By applying similar design processes across multiple projects—first with the "Wish Light" and later with textiles—students reinforce their understanding of core concepts. Additionally, reflective evaluations and peer critiques encourage students to continually revisit their work, solidifying their learning and promoting long-term retention of skills and knowledge.

SUBJECT CURRICULUM INTENT

The DT curriculum built around a carousel. Students learn about Design technology, Textiles and Food Technology. During the Design Technology rotation students learn about designing to inspire creativity and equip students with a diverse range of skills that combine both practical and technical elements of design. Students explore a variety of materials and techniques, with specific units focused on different aspects of the design process. The project involves designing and making a "wish light," where students learn about different cultures, structures and the practicalities of designing for functionality and aesthetics. Through this project, students explore principles of form, balance, and strength, applying their understanding to create a light working on a design brief. This unit emphasises hands-on learning, introducing students to different construction techniques, CAD design material properties, and problem-solving as they bring their designs to life.

In a separate rotation students embark on learning about textiles. Students delve into the world of soft materials and fabrics. They learn about the structural properties of textiles, experimenting with stitching, weaving, and fabric manipulation to create 3D forms. This unit allows students to explore the intersection of design and , understanding how textiles can be used to create functional and decorative pieces. Throughout the course, students not only refine their technical abilities but also develop their critical thinking skills by evaluating the design process and making informed aesthetic, social, and technical decisions.

PDE Links

- Developing responsible, respectful and active citizens who are able to play their part and become actively involved in public life as adults.
- Developing students' confidence, resilience and knowledge so that they can keep themselves mentally healthy.

Essential knowledge

- Student will have a basic understanding of a simple circuit
- Structures and how they work
- An understanding of why we use materials in a particular way
- Learning how to test and evaluate their own work
- Understanding the safety element in a DT practical room

Essential Skills

Using CAD and CAM equipment and software_Using a range of cutting and shaping tools in the practical room. Student will be able to use basic soldering techniques. Use a range of modelling skills to create basic prototypes.

HOW IS THE EXTENDED TIME IN KS3 USED TO IMPROVE & ENRICH LEARNING IN THE SUBJECT?

In Key Stage 3, the extended time is used to build a strong foundation in Design Technology and Textiles, preparing students for future studies in the subject, including the GCSE course. During this stage, students develop essential skills, concepts, and knowledge, gradually progressing through increasingly complex design challenges.

The curriculum is designed to enrich students' understanding of both traditional and modern techniques. In Design Technology, students explore materials, structures, and tools, working with a variety of resources such as hand tools, digital software, and basic machinery. In Textiles, students engage in fabric manipulation, stitching, and creative design, learning how textiles can be functional and expressive.

The extended time in KS3 allows for deep exploration of design processes, providing opportunities for students to develop their creativity, problem-solving, and critical thinking. Practical projects and hands-on activities help students apply their learning in real-world contexts, while reflective tasks encourage them to evaluate and improve their designs. Aspiration days and focused workshops help students build on the skills they have acquired, fostering confidence and laying the groundwork for success in future design courses.

YEAR 7

	KNOWLEDGE	CONCEPTS	SKILLS	RATIONALE	FUTURE DEVELOPMENT
Design and Technology	<p>Students will research various cultures and learn how to work from a design brief focused on making a culturally-inspired structured Wishlight.</p> <p>The iterative design cycle will guide students through the process of refining their ideas and designs.</p> <p>Students will develop an understanding and basic knowledge of different materials, knowing how they are used in various cultural contexts.</p> <p>They will learn the different types of structures, understanding how to reinforce them efficiently in relation to their cultural significance.</p> <p>Students will evaluate the positive and negative aspects of each structure, examining why certain structures are used within specific cultures.</p> <p>Students will learn how to construct a structure, applying techniques relevant to the chosen cultural designs.</p> <p>They will be able to design and make something with target criteria, ensuring the design is purposeful and culturally appropriate.</p> <p>Students will understand and know how to alter and improve an existing structure, considering both technical improvements and cultural symbolism.</p>	<p>Design</p> <p>Understand the purpose of structures and when to use different types.</p> <p>Analyse existing products to identify strengths and weaknesses.</p> <p>Explore various design strategies to aid the design process.</p> <p>Make</p> <p>Learn about materials: plastics, metal, paper and card, bricks, and natural resources.</p> <p>Experiment with different making methods for the same product.</p> <p>Develop skills in card modeling to visualise designs.</p> <p>Evaluate</p> <p>Understand how to evaluate and improve designs using card models.</p> <p>Reflect on the effectiveness of designs and suggest modifications.</p> <p>Technical Knowledge</p> <p>Gain knowledge about the properties of different materials and how they can be combined.</p> <p>Understand the steps necessary to carry out a project successfully, focusing on task management throughout the process.</p>	<p>Literacy- Writing, comparing, analysing, evaluating, methodology.</p> <p>Maths- Measurements, weights.</p> <p>Geography- Locations, different cultures, existing structures, natural structures and how they are made.</p> <p>Students will know the properties of each materials, and how to use them appropriately.</p> <p>Students will have the skill to apply the structures to any product they design.</p> <p>Students will learn the skills of analysing and how they can use products to identify areas of success and areas of problems.</p> <p>Students will have the skills to produce the same idea in multiple ways which may improve the properties of the product.</p> <p>Students will know the different forces and stresses that can be placed on materials and how materials can be modified to withstand greater forces or stresses.</p> <p>students will be able to evaluate and analyse the success of their prototype product and suggest potential future modifications.</p> <p>Students will have the skill for creating a set of initial design ideas by using the iterative design process.</p>	<p>The reason we deliver this to the students first is down to the fact structures are the foundation of design. Everything around us is made up of structures. Therefore, this allows us to explain to students the importance of structures and materials.</p> <p>This will be used throughout school and in the real world. This will allow students to understand how and why we design things the way we do. Ensuring the material is appropriate and the structure will be able to hold both static and dynamic weight while under forces.</p> <p>By working with paper and card, it allows students to realise how strong the weakest material can be if you work with them effectively, and how to save materials.</p>	<p>Students could make multiple structures and they could evaluate which was more successful and why, when would they use each one etc.</p>

	<p>They will learn how to construct and layer materials in 2D design, taking into account both structural efficiency and cultural aesthetics.</p> <p>Students will analyse existing cultural structures and learn how to interpret the research they have conducted, incorporating it into their final design.</p>				
Textiles	<p>In textiles, students will develop foundational knowledge of fabrics, stitching techniques, and decorative processes while working on a design brief to create a soft toy inspired by the work of Lucy Sparrow. They will explore different types of fabrics and their properties, learning how to select appropriate materials for their designs. Students will master key textile skills such as hand sewing, machine stitching, and embellishment, which are essential for constructing their soft toy. Through the iterative design process, they will learn to create and refine patterns, ensuring the final product meets the design brief's criteria and reflects the vibrant, playful style characteristic of Lucy Sparrow's work. Additionally, students will gain an understanding of how textiles can be used artistically, developing their ability to create functional and aesthetically pleasing items.</p> <p>In textiles, students will develop a comprehensive understanding of various fabrics, their properties, and how to</p>	<p>Design</p> <p>Introduce students to the principles of textile design, including fabric selection, care, and construction.</p> <p>Encourage brainstorming and sketching of ideas, drawing inspiration from Lucy Sparrow's playful and whimsical style.</p> <p>Explore the importance of choosing the right materials to achieve specific design goals.</p> <p>Make</p> <p>Teach textile construction techniques such as sewing, cutting patterns, and adding embellishments.</p> <p>Allow students to manipulate fabrics to create different textures and shapes for their soft toys.</p> <p>Guide students in creating prototypes and refining their designs through hands-on experience.</p> <p>Evaluate</p> <p>Promote reflection on choices made throughout the design process, encouraging students to learn from mistakes.</p> <p>Establish target criteria for the final product to ensure it meets both functional and aesthetic goals.</p>	<p>Students will develop a wide range of essential skills through their work in textiles while creating a soft toy based on Lucy Sparrow's designs. These skills include:</p> <p>Fabric Selection: Students will learn to identify different fabrics such as cotton, felt, and synthetic materials, understanding their properties and determining the best fabric for their design based on texture, durability, and appearance.</p> <p>Mastery of both hand sewing and machine stitching will be central. Students will practice basic stitches like the running stitch, backstitch, and whipstitch for hand sewing, and they'll learn how to thread and operate a sewing machine to create stronger, more precise seams.</p> <p>Students will gain skills in creating and interpreting patterns for their soft toys. They'll learn how to accurately measure, mark, and cut fabric to follow design plans, ensuring their pieces fit together as intended.</p> <p>Through assembling their soft toy, students will develop construction skills, learning how to layer and join fabric pieces,</p>	<p>The rationale behind this textiles project is to provide students with a well-rounded learning experience that combines technical skills, creative expression, and critical thinking. By designing and creating a soft toy inspired by Lucy Sparrow's work, students are encouraged to engage with the world of textiles in a way that is both practical and imaginative, fostering a deeper understanding of the subject.</p> <p>Developing Technical Expertise: This project introduces students to the fundamental skills needed in textile work, such as fabric selection, sewing, and pattern-making. These skills are essential for anyone pursuing a future in textiles, fashion, or design, but they also have broad applications in everyday problem-solving and craftsmanship. By mastering these techniques, students gain confidence in working with materials and tools, preparing them for more complex projects in the future.</p> <p>Encouraging Creativity and Innovation: Drawing inspiration from Lucy Sparrow's playful, artistic soft sculptures, students are motivated to think creatively about how to transform simple fabrics into expressive, meaningful objects. This encourages them to push boundaries, experiment with textures,</p>	<p>Future developments for this textiles project could involve expanding both the technical complexity and the creative possibilities for students, as well as incorporating emerging technologies and sustainable practices</p>

	<p>care for them. While working on the design brief to create a soft toy inspired by Lucy Sparrow, students will explore a wide range of fabrics such as cotton, felt, fleece, and synthetic materials. They will learn how each fabric behaves, its durability, flexibility, and suitability for specific purposes, particularly in creating soft toys.</p> <p>Students will gain knowledge about fabric care to maintain their quality. They will also learn about sustainable fabric choices, considering the environmental impact of their material selections. Through this process, students will not only master textile techniques like cutting, hand sewing, and machine stitching, but also understand how to properly maintain and preserve the fabrics used in their projects, ensuring longevity and quality in their final product.</p>	<p>Foster an understanding of how to evaluate the effectiveness of their designs and the quality of their final product.</p> <p>Technical Knowledge</p> <p>Educate students on the characteristics of different fabrics and their influence on durability and appearance.</p> <p>Discuss the care and maintenance of textiles to ensure longevity and usability.</p> <p>Introduce the iterative design process, emphasising the cyclical nature of designing, making, and evaluating.</p>	<p>sew seams, and add stuffing to create the desired shape and texture of their design.</p> <p>Students will learn how to add decorative elements to their designs, including embroidery, appliqué, and fabric painting, to give their soft toys distinctive and playful characteristics inspired by Lucy Sparrow’s style.</p> <p>Problem-Solving and Iterative Design: As part of the design cycle, students will refine their work through trial and error. They will develop problem-solving skills by identifying and fixing issues that arise during construction, such as uneven seams or incorrect fabric selection, iterating on their designs to improve the final outcome.</p> <p>Students will acquire practical knowledge about how to care for different types of fabrics, understanding how to wash, iron, and store materials to preserve their appearance and durability.</p> <p>Throughout the process, students will develop their creativity and ability to think critically about aesthetics, functionality, and the cultural context of their designs. They will learn to create soft toys that are not only visually engaging but also meaningful and purposeful in their design. These skills will equip students with the technical and creative abilities needed for success in textiles, helping them produce high-quality, thoughtful, and well-crafted soft toys.</p>	<p>colours, and shapes, and develop their own unique design style. Creativity in design is crucial, as it teaches students to generate ideas, think outside the box, and innovate—all essential skills in many fields beyond textiles.</p> <p>The iterative design process is at the heart of this project. Students learn that successful design is not a one-step process but involves multiple stages of development, reflection, and refinement. This approach teaches resilience, as students must adapt and improve their work after encountering challenges. The iterative process also aligns with real-world design and manufacturing, where prototypes are revised based on feedback and testing.</p> <p>Lucy Sparrow’s work, while playful and artistic, demonstrates how textiles can be used to reimagine everyday objects in new ways. By integrating art into their designs, students learn the importance of balancing aesthetics with functionality. They begin to understand that textiles can be both visually engaging and practical, a lesson that is applicable in areas like fashion, interior design, and product design.</p> <p>This project not only teaches specific textile techniques but also builds important life skills. Students learn how to manage a project from start to finish, work independently or in teams, follow instructions, and problem-solve. These are transferable skills that apply in a variety of contexts, from personal projects to professional environments.</p> <p>Understanding different fabric types and how to care for them is a crucial part of textile education. By learning about fabric properties, students can make informed decisions in their design work and understand the</p>	
--	---	--	--	---	--

				<p>environmental and practical implications of their choices. Knowing how to care for textiles also has long-term benefits, teaching students how to maintain their creations for durability and sustainability.</p> <p>By engaging with Lucy Sparrow's work, students are introduced to the concept of using textiles as a medium for artistic expression. This helps broaden their understanding of art forms and the ways in which different materials can be used to communicate ideas and emotions. Students begin to appreciate the cultural and artistic value of textiles, going beyond their functional purpose.</p>	
--	--	--	--	---	--