



## St Mark's CE Primary School - Design and Technology- 2024-25

Year Group	4	Term	Autumn	Question	Design, make and evaluate a <b>pencil case</b> (product) for <b>ourselves</b> (user) to <b>hold our pencils and crayons</b> (purpose)
<b>Overview of Unit</b>					
<p><i>What is the main purpose of the unit? What will children know and be able to do by the end of it? What relevant learning came before it? How does it prepare children for future learning?</i></p> <p>Children should follow the <i>Design, Make, Evaluate</i> process to produce a pencil case to hold their stationary. Children to examine a range of textile products / pencil cases to gain an understanding of 3D shapes and patterns. This is the second unit focusing on textiles. Children have previously learnt about templates and joining in Y2 and the children's knowledge of Textiles will be further developed when they learn about Combining different fabric shapes in Y5.</p>					
<b>Sticky Knowledge</b> By the end of this unit, children will know:			<b>Skills</b> The children will use and develop these skills during this unit:		
<p><i>This should be a bullet-point list of facts that children should be able to recall.</i></p> <ul style="list-style-type: none"> <li>Know that there are a range of textiles that have been designed, produced and evaluated.</li> <li>Know that George de Mestral created Velcro in 1956</li> <li>Know that Gideon Sundback created the Zipper in 1917</li> <li>Know that 3D products can be made by joining two identical 2D shapes.</li> <li>Know that fabric pieces can be joined by stitching</li> </ul>			<ul style="list-style-type: none"> <li>To know how to use ideas from other people when producing a design</li> <li>To know how to produce a plan e.g. draw, sketch, and explain it through discussion and annotation</li> <li>To know how to persevere and adapt work when original ideas do not work</li> <li>To know which tools to use for a particular job, handling it correctly</li> <li>To measure, mark out, cut and shape a range of materials and components using appropriate tools, equipment and techniques with some accuracy</li> <li>To assemble, join and combine materials and components with some accuracy, using a range of techniques</li> <li>To know how to evaluate the products purpose and appearance, suggesting any improvements</li> <li>To explain how and why the original design has been improved</li> </ul>		

Lesson	Learning Objective	Success Criteria	Key Vocabulary	Activity/Task
	<i>What will the children learn? (not what they will do)</i>	<i>What will the children need to do in order to be successful, and to meet the LO? This might be a checklist, or a list of steps to follow. The list might include demonstrating one of the skills listed above.</i>	<i>Just the new vocab for this lesson, not the entire list for the unit</i>	<i>A brief summary. No adaptations need to be listed - the class teacher will do this part in their flipchart planning based on knowledge of the class. Just a brief guide, ensuring that the task enables the children to show the success criteria and meet the LO. If there are any useful links to useful resources, you can add those here too.</i>
<b>Lesson 1:</b>	To investigate a range of textile products	<ul style="list-style-type: none"> <li>Explore a range of textile products</li> </ul>	Evaluate User Purpose	Children investigate a range of textile products that have a selection of stitches, joins, fabrics, finishing techniques, fastenings and purposes, linked to the product they will design, make and



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		<ul style="list-style-type: none"> <li>Understand the purpose of products and their intended user</li> <li>Know that 3D products are made from joining 2D pieces</li> <li>Identify who made the products and when they were made (Velcro - George de Mestral, 1956) (Zippers - Gideon Sundback, 1917)</li> <li>Identify the fabrics products are made from and explain why they have been chosen.</li> <li>Express opinions about products based on design and use.</li> </ul>	Design Product Function Aesthetics Pattern pieces Stitch Seam Seam allowance Fabric/names of fabric Finishing Fastening	<p>evaluate. Think about products from the past and what changes have been made in textile production and products e.g. the invention of <b>zips</b> and <b>Velcro</b>. Give children the opportunity to disassemble appropriate textiles products to gain an understanding of 3-D shape, patterns and seam allowances. Use questioning to develop understanding e.g. <b>What is its purpose? Which one is most suited to its purpose? What properties/characteristics does the fabric have? Why has this fabric been chosen? How has the fabric been joined together? How effective are its fastenings? How has it been decorated? Does its decoration have a purpose? What would the 2-D pattern piece look like? What are its measurements? How might you change the product?</b></p> <p>Pupils could evaluate a chosen product by making drawings, stating the user and purpose and detailing size, fabric, decoration etc.</p>
<b>Lesson 2:</b>	To explore joining fabrics together	<ul style="list-style-type: none"> <li>Use a disassembled product to create a paper pattern</li> <li>Use a range of stitching techniques to join two pieces of fabric together (<b>over sew stitch</b> and <b>running stitch</b>)</li> <li>Use and understand the need for seam allowances</li> <li>Evaluate the different stitches used in terms of how securely the two pieces of fabric are joined</li> </ul>	Fabric/names of fabric Pattern pieces Templates Stitch Over sew stitch Running stitch Seam Seam allowance Finishing Fastening	<p>Show a textiles product that has been disassembled. Look at the 2D shapes and the need for seam allowance. Model using a paper pattern to mark out and cut pieces of fabric.</p> <p>Pupils practise using prepared pattern pieces. Demonstrate a range of stitching techniques showing the use of and need for seam allowances. Pupils practise different stitches by sewing two small pieces together.</p> <p>Ask questions to develop understanding e.g. <b>Which joining techniques makes the strongest seam? Why? Which stitch is appropriate for the purpose? Which is the best joining techniques for the fabric? Which would be the best fastener? Why?</b></p>
<b>Lesson 3:</b>	To explore finishing techniques	<ul style="list-style-type: none"> <li>Use a range of finishing techniques, including embroidery, applique and paint</li> <li>Evaluate each technique in terms of how well they suit the purpose of the product and the needs and wants of the intended user.</li> </ul>	Finish/finishing technique Embroidery Applique	<p>Provide pupils with a range of fabrics for exploring and testing out a range of finishing techniques, e.g. applique, embroidery, fabric pens/paint and printing. Ask questions to develop understanding e.g. <b>What is the effect of the decorative techniques? Which is more suited to the purpose? Which is most suited to the user?</b></p>



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		<ul style="list-style-type: none"> <li>Understand and use appropriate technical vocabulary.</li> </ul>		
<b>Lesson 4:</b>	To design a product	<ul style="list-style-type: none"> <li>Develop ideas through discussion.</li> <li>Generate realistic ideas based on the needs of the user</li> <li>Communicate ideas through annotated sketches, prototypes and pattern pieces</li> <li>Consider the purpose of the produce and the needs of the intended user and create a set of design criteria</li> <li>Plan the main stages of making.</li> </ul>	User Purpose Design Design brief Design Criteria Model Prototype Annotated sketch Functional Innovative Aesthetics Pattern pieces Fabric/names of fabric Finishing techniques Stitch	<p>Children to create a design brief, supported by the teacher, set within a context which is authentic and meaningful.</p> <p>Discuss the intended user, purpose and appeal of their product. Create a set of design criteria that can be used to guide the development and evaluation of the projects.</p> <p>Ask children to sketch and annotate a range of possible ideas, constantly encouraging creative thinking.</p> <p>Produce mock-ups and prototypes of their chosen product. Plan the main stages of making e.g. using a flowchart or storyboard.</p>
<b>Lesson 5:</b>	To make a product.	<ul style="list-style-type: none"> <li>Select tools and fabrics according to functional properties and aesthetic qualities</li> <li>Use tools to mark our, cut out and join with some accuracy</li> <li>Apply a range of finishing techniques suitable for the product they are making</li> <li>Evaluate their ongoing work and make changes to overcome problems</li> </ul>	Pattern pieces Fabric/names of fabric Stich Seam Seam allowance Secure Finish/finishing, Appearance Appealing Aesthetics Fastening Applique	<p>Remind pupils of the design brief and give them opportunity to revisit their design proposals and plans.</p> <p>Pupils collect the fabrics and tools required for their product and use their pattern pieces to mark out and cut out their shapes. Pupils use their chosen joining techniques to assemble their product.</p> <p>Pupils use their design criteria as an ongoing guide and encourage them to evaluate their ongoing work against this e.g. <b>Are the two pieces fastened securely together? Are there any holes in the seam?</b> Encourage pupils to make changes to their products as they work to overcome any problems that arise.</p> <p><b>How does your chosen finish meet the needs of the intended user?</b> Refer to design brief and criteria. Pupils use finishing techniques to complete their products, referring to the design brief and their design proposals. Pupils continue to evaluate their work e.g. <b>Which finishing technique are you using? Why are you choosing this technique? How does your chosen finish meet the needs of the intended user?</b></p>
<b>Lesson 6:</b>	To evaluate my product.	<ul style="list-style-type: none"> <li>Use their design criteria to evaluate their product by judging the extent to which it suits the purpose</li> </ul>	Evaluate Design brief Design criteria Innovative User	<p>Evaluate as the process is undertaken and the final product in relation to the design brief and criteria.</p>



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		and meets the needs of the intended user <ul style="list-style-type: none"><li>Identify both the strengths of the product and the areas for development</li></ul>	Purpose Function Product Appeal Finish Improve	The product should be tested by the intended user and for its purpose and others' views sought to help with identifying possible improvements
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*Always plan in 6-week blocks. This will allow for settling in weeks, assessment weeks, Christmas/Easter/end of term events, etc.*

*Where we have a 4 week and an 8 week half term (such as in Spring) the units will still be taught as two six-week blocks.*