



St Mary's Catholic Junior School

Year 4



Design & Technology Long Term Plan

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Textiles: fastenings		Food: adapting a recipe		Electrical Systems: torches

Design	Make	Evaluate	Technical Knowledge
<p><u>Textiles</u> Writing design criteria for a product, articulating decisions made Designing a personalized book sleeve</p> <p><u>Food</u> Designing a biscuit within a given budget, drawing upon previous taste testing</p> <p><u>Electrical Systems</u> Designing a torch, giving consideration to the target audience and creating both design and success criteria focusing on features of individual design ideas</p>	<p><u>Textiles</u> Making and testing a paper template with accuracy and in keeping with the design criteria Measuring, marking and cutting fabric using a paper template Selecting a stitch style to join fabric, working neatly sewing small neat stitches Incorporating fastening to a design</p> <p><u>Food</u> Following a baking recipe Cooking safely, following basic hygiene rules Adapting a recipe</p> <p><u>Electrical Systems</u> Making a torch with a working electrical circuit and switch Using appropriate equipment to cut and attach materials</p>	<p><u>Textiles</u> Testing and evaluating an end product against the original design criteria Deciding how many of the criteria should be met for the product to be considered successful Suggesting modifications for improvement</p> <p><u>Food</u> Evaluating a recipe, considering taste, smell, texture and appearance Describing the impact of the budget on the selection of ingredients Evaluating and comparing a range of products Suggesting modifications</p> <p><u>Electrical Systems</u> Evaluating electrical products</p>	<p><u>Textiles</u> Understanding that there are different types of fastenings and what they are Articulating the benefits and disadvantages of different fastening types</p> <p><u>Food</u> Understanding the impact of the cost and importance of budgeting while planning ingredients for biscuits Understanding the environmental impact on future product and cost of production</p> <p><u>Electrical Systems</u> Learning how electrical items work Identifying electrical products Learning what electrical conductors and insulators are</p>

	Assembling a torch according to the design and success criteria	Testing and evaluating the success of a final product and taking inspiration from the work of peers	Understanding that a battery contains stored electricity and can be used to power products Identifying the features of a torch Understanding how a torch works Articulating the positives and negatives about different torches
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	Key Knowledge	Vocabulary	Assessment Criteria – ‘Can I...? statements’
Textiles: fastenings	<ul style="list-style-type: none"> To identify and evaluate different types of fastenings To explain the advantages and disadvantages of each fastening type To design a product to meet a design criteria To make and test a paper template To assemble their book jacket 	Fabric Fastening Fix	<ul style="list-style-type: none"> Can I identify the features, benefits and disadvantages of a range of fastening types? Can I write design criteria and design a sleeve that matches this criteria, including a fastening of some kind? Can I making a template for my book sleeve? Can I assemble my case using any stitch that I am comfortable with?
Food: adapting a recipe	<ul style="list-style-type: none"> To follow a baking recipe To make and test a prototype To design a biscuit to a given budget 	Aesthetic Cross-contamination Design Criteria Diet Innovative	<ul style="list-style-type: none"> Following a recipe with some support? Can I describe some of the features of a biscuit based on taste, smell, texture and appearance? Can I adapt a recipe by adding extra ingredients to it? Can I consider safety and hygiene when baking?

	<ul style="list-style-type: none"> To make a biscuit that meets a given design brief 	Measure Packaging Processed Research Texture	<ul style="list-style-type: none"> Can I plan a biscuit within budget? Can I create branding for my group's final product?
Electrical Systems: torches	<ul style="list-style-type: none"> To learn about electrical items and how they work To analyse and evaluate electrical products To design a torch To make and evaluate a torch 	Aesthetics Assemble Battery Bulb Buzzer Circuit Component Conductor Design Design criteria Diagram Electricity Equipment Evaluation Ingredients Input Insulator LED Model Packaging Properties Recyclable Series circuit Shape Sketch Switch Target audience Test Theme	<ul style="list-style-type: none"> Can I identify electrical products and explain why they are useful as well as helping to make a working switch? Can I identify the features of a torch and how it works, as well as describing what makes a torch successful? Can I create suitable designs that fit the success criteria and their own design criteria? Can I create a functioning torch with a switch according to their design criteria?