

Design Technology Year 4 Overview



		Autumn	Spring	Summer
Year 4 Design Technology	Year 4 NC objectives		Year 4 NC objectives	
	Design <ul style="list-style-type: none"> Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups. Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. 			
	Make <ul style="list-style-type: none"> Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their properties and aesthetic qualities. 			
	Evaluate <ul style="list-style-type: none"> Investigate and analyse a range of existing products Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. Understand how key events and individuals in design and technology have helped shape the world. 			
	Technical knowledge <ul style="list-style-type: none"> Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. Understand and use mechanical systems in their products [gears, pulleys, cams, levers and linkages]. Understand and use electrical systems in their products [series circuits, incorporating switches, bulbs, buzzers and motors]. Apply their understanding of computing to program, monitor and control their products. 			
Cooking and Nutrition: Understand and apply principles of a healthy and varied diet, prepare and cook a variety of dishes using a range of techniques and understand seasonality and how a variety of ingredients are grown, reared, caught and processed.				
Year 4 Key Learning		Year 4 Key Learning		Year 4 Key Learning
Cooking and Nutrition: Moroccan Stew		Electronics: Torches		Textiles: Stuffed Toy
<ul style="list-style-type: none"> Understand the importance of a balanced and healthy diet, knowing the significance of a variety of food and drink for healthy bodies. Investigate and evaluate African ingredients and understand ingredients can be fresh, pre-cooked or processed. Know the origins of some ingredients. Select and plan a recipe including ingredients, utensils and equipment. Understand safety and hygiene when preparing food. Choose and use a range of tools and techniques correctly. Evaluate the finished product against the design brief and suggest improvements. 		<ul style="list-style-type: none"> Know and understand what an electrical conductor is. Explore and evaluate features of different types of torches. Know and understand what a switch is and its purpose. Create series circuits and understand how to locate and correct faults. Know the features of a torch. Generate realistic ideas, a design brief and criteria focussing on the purpose. Plan using annotated sketches or cross-sectional diagrams etc. Know that materials can be manipulated to improve strength and stability. Use appropriate tools and equipment. Evaluate the product against original design. 		<ul style="list-style-type: none"> Investigate and evaluate existing products exploring and analysing different materials, techniques and design features used. Understand and practice sewing techniques that can be used for different purposes. Design and plan using a template and identify a simple design-criteria. Understand the importance of finishing techniques to ensure the product is strong. Use a variety of materials and tools to add design features. Evaluate the product against the original design criteria and test how well it works in relation to the purpose. Suggest improvements to their finished product.

Vocabulary	Balanced diet, carbohydrates, protein, environmental factors, origin, research, design criteria, rehydrate, garnish, presentation	Torch, insulator, conductor, series circuit, components, cross-sectional diagram, case, reflector, faults, function, durability	Fabric, soft toy, running stitch, whip stitch, pattern template, design brief and criteria, mark out, applique, embellishment, embroidery
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