

Progression in Design Technology

	Year 1 and 2		Year 3 and 4		Year 5 and 6	
Design	Pupils should be taught to: <ul style="list-style-type: none"> • design purposeful, functional, appealing products for themselves and other users based on design criteria • generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology 		Pupils should be taught to: <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	Pupils should be taught to: <ul style="list-style-type: none"> • select from and use a range of tools and equipment to perform practical tasks [e.g. 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 characteristic 		Pupils should be taught to: <ul style="list-style-type: none"> • select from and use a wider range of tools and equipment to perform practical tasks [e.g. cutting, shaping, joining and finishing], accurately • select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities 			
Evaluate	Pupils should be taught to: <ul style="list-style-type: none"> • explore and evaluate a range of existing products • evaluate their ideas and products against design criteria 		Pupils should be taught to: <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	Pupils should be taught to: <ul style="list-style-type: none"> • build structures, exploring how they can be made stronger, stiffer and more stable • explore and use mechanisms [e.g. levers, sliders, wheels and axles], in their products 		Pupils should be taught to: <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 [for example, gears, pulleys, cams, levers and linkages] • understand and use electrical systems in their products [e.g. series circuits incorporating switches, bulbs, buzzers and motors] • apply their understanding of computing to program, monitor and control their products 			
Cooking & Nutrition	Pupils should be taught to: <ul style="list-style-type: none"> • use the basic principles of a healthy and varied diet to prepare dishes • understand where food comes from 		Pupils should be taught to: <ul style="list-style-type: none"> • understand and apply the principles of a healthy and varied diet • prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques • understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed 			
	Rotation 1	Rotation 2	Rotation 1	Rotation 2	Rotation 1	Rotation 2
	<u>Mechanisms</u> Slides and Levers <u>Structures</u> Free standing structures <u>Food Tech</u> Fruit & Vegetables	<u>Food Tech</u> Fruit & Vegetables <u>Mechanisms</u> Wheels & Axles <u>Textiles</u> Templates and joining techniques	<u>Mechanisms</u> Levers and linkages Diggers JCB - Cranes <u>Mechanisms</u> Electrical CAD Torches	<u>Mechanisms</u> Electrical CAD Switches and motors <u>Mechanisms</u> Roman Tech Roman Shields (usable)	<u>Electrical</u> Robotic / remote function Mars Rover Rocketry <u>Textiles</u> Survival Suits Different fabrics CAD	<u>Electrical</u> Programmed operation Complex system Fan temperature <u>Structures</u> Frames: Bridges & Dams

			<p><u>Structures</u> Roundhouses Building techniques Thatch</p> <p><u>Structures</u> Planters Watering systems</p> <p><u>Textiles</u> Early clothing Weaving - cloth Knitting</p> <p><u>Food Tech</u> Picnics Sandwiches (packaging)</p>	<p><u>Structures</u> Shelter building Survival skills</p> <p><u>Textiles</u> Banners and flags</p> <p><u>Structures</u> Viking Longboats Waterproofing</p> <p><u>Food Tech</u> Salads – healthy ingredients Sustainable fish</p>	<p><u>Food Tech</u> Mediterranean Greek Mezze</p> <p><u>Structures</u> Raised beds, planters Trellis</p> <p><u>Mechanical Systems</u> Pulleys and Gears Pumps Merry go Round</p> <p><u>Flight Challenge</u> Aerodynamics Load and propulsion</p>	<p><u>Food Tech</u> Indian meal prep Culture and seasonality</p> <p><u>Structures</u> Frames bug hotels</p> <p><u>Design and construct</u> Build a Periscope CAD</p> <p><u>Eco Challenge</u> Renewables Energy saving</p>
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