

# Design & Technology Curriculum

This document is a summary taken from the main curriculum.

Cooking & nutrition		Textiles		Mechanisms & control systems		Structures		Electrical control
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	Term 1		Term 2		Term 3	
	1:1	1:2	2:1	2:2	3:1	3:2
<b>EYFS</b>	Sequenced across Nursery and Reception the EYFS curriculum has been formed from aspects focussed on Physical Development and Expressive Art and Design. These include joining materials, planning, designing and reviewing and healthy food preparation.					
<b>Year 1</b>	<b>Healthy Party Food</b> <small>Design - appealing products for others to suit healthy party food design brief. To base designs on research using ICT.</small>	<b>A cast of characters</b> <small>Design - purposeful, functional, appealing products for themselves and other users based on character design criteria. Make - select from and use a range of tools and equipment to perform practical tasks. Evaluate - explore and evaluate a range of existing products</small>	<b>Using levers and sliders to make parts of a book move</b> <small>Design - purposeful, functional, appealing products for themselves and other users based on design criteria. Design - generate, develop, model and communicate their ideas through talking, drawing, templates, mod-ups and, where appropriate, information and communication technology. Evaluating - explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria. Technical knowledge - explore and use mechanisms</small>			
<b>Year 2</b>	<b>Dips and Dippers</b> <small>Design - appealing products for others to suit design brief. To base designs on research using ICT. Design - from mock ups. Making - by selecting equipment for cutting. Evaluate own ideas.</small>	<b>Moving vehicles</b> <small>Explore how moving objects work. Look at wheels, axles, turning mechanisms, hinges and simple levers. Make a product that moves using a turning mechanism or a level/hinge, build structures, exploring how they can be made stronger, stiffer and more stable explore and use mechanism</small>	<b>Playgrounds</b> <small>Design - purposeful, functional, appealing products for themselves and other users based on design criteria. Design - generate, develop, model and communicate their ideas through talking, drawing, templates, mod-ups and, where appropriate, information and communication technology. Select from and use a range of tools and equipment to perform practical tasks. Making - select from and use a wide range of materials and components, including construction materials, according to their characteristics. Evaluating - explore and evaluate a range of existing products evaluate their ideas and products against design criteria. build structures, exploring how they can be made stronger, stiffer and more stable</small>			
<b>Year 3</b>	<b>Baking Bread</b> <small>Food Technology - 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</small>	<b>Pencil cases</b> <small>Design - use research and develop design criteria to inform the design of functional and appealing pencil case that is fit for purpose, aimed at particular individuals or groups, generate, develop, model and communicate their ideas through discussion, annotated sketches,</small>	<b>Mechanical systems – using levers and sliders to create pop ups</b> <small>Designing - use research and develop design criteria to inform the design of innovative, functional, appealing Egyptian 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. Generate, develop, model and communicate ideas through discussion, annotated sketches, and prototypes, in the context of using the moving poster design to create a prototype. Technical knowledge - Understand and use mechanical systems in their products (for example levers and linkages), in the context of knowing the name and function of the parts of a lever and linkage system.</small>			
<b>Year 4</b>	<b>Making a seasonal tart</b> <small>Food Technology - 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</small>	<b>Bridges</b> <small>Making a range of different shaped beam bridges. Using triangles to create truss bridges that span a given distance and supports a load. Building a wooden bridge structure. Independently measuring and marking wood accurately. Selecting appropriate tool and equipment for tasks. Using the correct techniques to saw safely. Identifying where a structure needs reinforcement and using card corners for support.</small>	<b>Light up signs- programming lights</b> <small>Resisting - accurately select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities. Making - accurately. Select from and use a wide range of materials according to their functional properties and aesthetic qualities. Resisting - understand how key events and individuals in design and technology have helped shape the world. Technical knowledge - understand and use electrical systems in their products. (for example, series circuits incorporating switches, bulbs, buzzer and motor) apply their understanding of computing to program, monitor and control their products.</small>			
<b>Year 5</b>	<b>Great British Dishes</b> <small>Design - appealing products that are fit for purpose, aimed at particular individuals or groups. Resisting - 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. Resisting - 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</small>	<b>Viking longboat</b> <small>To build a wooden framework accurately using wider range of tools such as hack saws, sand paper and cool glue guns. To reinforce frame from previous K&amp;U from structures</small>		<b>Funky Furnishings: Fastenings</b> <small>Learning to sew/ stitch to join fabric. Applying blanket stitch so the space between the stitches are even and regular. Threading needles independently.</small>		
<b>Year 6</b>	<b>Global Foods</b> <small>Food Technology - 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 - To discuss global impact, food miles, carbon foot prints. To explain that diets around the world are based on similar food groups.</small>	<b>Fair</b>	<b>Ground Rides</b> <small>To research fairground rides using personal and CAD programs. To research how components are joined to make rides turn. To explore and make belt and pulley systems (prototypes) to transfer movement from one axle to another. To recap and test reinforced frameworks to make them sturdy. To explore ideas then create a step by step plan.</small>	<b>Programming pioneers</b> <small>To learn the chronology of significant moments in computer science history. To develop and debug to fix faults in prototypes. To follow instructions to construct a prototype Pelican Crossing with Three LED lights. Then program using Scratch. Design an embed room system.</small>		



**Six key principles**

<b>User</b>	<b>Purpose</b>	<b>Innovation</b>	<b>Authenticity</b>	<b>Functionality</b>	<b>Design decisions</b>
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