



## DESIGN AND TECHNOLOGY CURRICULUM OVERVIEW

Key Stage 1 – Subject Content Scheme of Work – Projects on a Page  National Curriculum	Year 1			Year 2		
	Moving pictures	Free standing structures	Fruit salad	Vehicles	Puppets	Preparing vegetables
<b>Design</b> Design purposeful, functional, appealing products for themselves and other users based on design criteria	✓	✓	✓	✓	✓	✓
<b>Design</b> Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology	✓	✓	✓	✓	✓	✓
<b>Make</b> Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]	✓	✓	✓	✓	✓	✓
<b>Make</b> Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics	✓	✓	✓	✓	✓	✓
<b>Evaluate</b> Explore and evaluate a range of existing products	✓	✓	✓	✓	✓	✓
<b>Evaluate</b> Evaluate their ideas and products against design criteria	✓	✓	✓	✓	✓	✓
<b>Technical knowledge</b> Build structures, exploring how they can be made stronger, stiffer and more stable		✓		✓	✓	
<b>Technical knowledge</b> Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.	✓			✓		
<b>Cooking and Nutrition</b> Use the basic principles of a healthy and a varied diet			✓			✓
<b>Cooking and Nutrition</b> Understand where food comes from			✓			✓



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Key Stage 2 – Subject Content Scheme of Work – Projects on a Page	Year 3			Year 4		
	Packaging	Lights up	Sandwiches	Moving portraits	Money containers	Healthy food
National Curriculum						
<b>Design</b> 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	✓	✓	✓	✓	✓	✓
<b>Design</b> Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design	✓	✓	✓	✓	✓	✓
<b>Make</b> Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately	✓	✓	✓	✓	✓	✓
<b>Make</b> 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	✓	✓	✓	✓	✓	✓
<b>Evaluate</b> Investigate and analyse a range of existing products	✓	✓	✓	✓	✓	✓
<b>Evaluate</b> Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work	✓	✓	✓	✓	✓	✓
<b>Evaluate</b> Understand how key events and individuals in design and technology have helped shape the world	✓	✓		✓	✓	
<b>Technical knowledge</b> Apply their understanding of how to strengthen, stiffen and reinforce more complex structures	✓			✓		
<b>Technical knowledge</b> Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]				✓		
<b>Technical knowledge</b> Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]		✓				
<b>Technical knowledge</b> Apply their understanding of computing to program, monitor and control their products.	✓					
<b>Cooking and Nutrition</b> Understand and apply the principles of a healthy and varied diet			✓			✓
<b>Cooking and Nutrition</b> Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques			✓			✓
<b>Cooking and Nutrition</b> Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed			✓			✓



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Key Stage 2 – Subject Content Scheme of Work – Projects on a Page	Year 5			Year 6		
	Food – Celebrating culture and seasonality	Moving toys	Electrical systems	Shelters	Hats	Food
<b>National Curriculum</b>						
<b>Design</b> 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	✓	✓	✓	✓	✓	✓
<b>Design</b> Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design	✓	✓	✓	✓	✓	✓
<b>Make</b> Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately	✓	✓	✓	✓	✓	✓
<b>Make</b> 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	✓	✓	✓	✓	✓	✓
<b>Evaluate</b> Investigate and analyse a range of existing products	✓	✓	✓	✓	✓	✓
<b>Evaluate</b> Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work	✓	✓	✓	✓	✓	✓
<b>Evaluate</b> Understand how key events and individuals in design and technology have helped shape the world		✓	✓	✓	✓	
<b>Technical knowledge</b> Apply their understanding of how to strengthen, stiffen and reinforce more complex structures		✓	✓	✓	✓	
<b>Technical knowledge</b> Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]		✓				
<b>Technical knowledge</b> Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]			✓			
<b>Technical knowledge</b> Apply their understanding of computing to program, monitor and control their products.		✓			✓	
<b>Cooking and Nutrition</b> Understand and apply the principles of a healthy and varied diet	✓					✓
<b>Cooking and Nutrition</b> Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques	✓					✓
<b>Cooking and Nutrition</b> Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed	✓					✓



# Curriculum Drivers

## Subject: Design and Technology

<b>Challenge</b>	<p>Provide extra-curricular clubs for specific interests / develop talents</p> <p>Including DT activities / resources through CIL</p> <p>Children have the opportunity to develop their own ideas and challenge themselves to extend those ideas.</p> <p>Pupils are encouraged to develop and learn through an iterative approach.</p> <p>Provide opportunities to learn the DT skills so children can develop their own ideas and actually produce them.</p>
<b>Inclusion</b>	<p>Providing opportunities to develop practical learners who may struggle in academic subjects to reach their potential</p> <p>Support pupils with their physical / fine motor skills so that they can produce their design</p> <p>Differentiation could be through task, equipment, adult support</p> <p>Provide pupils with opportunities to use a range of construction kits / resources that they may not have used before – pre-learning of skills / equipment</p> <p>EYFS – provide opportunities to use toys / resources that they may have limited experience of</p>
<b>Positive Minds</b>	<p><b>Resilient tortoise</b> Pupils are encouraged to persevere when they encounter problems especially when using new skills and techniques</p> <p><b>Independent rhino</b> Encourage opportunities to develop independence when designing and making</p> <p><b>Risk-taking penguin</b> Children to feel confident to challenge themselves to ‘Think outside the box’ when designing and selecting tools and materials</p> <p><b>Reflective owl</b> Analysing and investigating existing products before designing their own Children are able to evaluate their own and other peoples work, against their original design criteria, in a positive way to support their development</p> <p><b>Team Bee</b> Children show respect, work collaboratively and support each other during the process</p> <p><b>Curious and creative chameleon</b> They explore their own ideas and imagination and become emerged in the process. In line with our healthy school’s ethos, pupils to understand the principles of a balanced, nutritious and healthy diet</p>