



Friars Primary School and Nursery
Design and Technology - National Curriculum Coverage by Year Group

Design and Technology

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Nursery (EYFS: Expressive Arts & Design: Being Imaginative and Expressive, Creating with Materials)	<p>Design & Technology is taught through interactions in continuous provision: child initiated and adult initiated through large and small scale activities inside and out. There are also opportunities for children to develop fine motor control skills through threading beads, using scissors etc. Throughout their time in nursery, children will be supported and encouraged to:</p> <ul style="list-style-type: none">• Use 3D and 2D structures to explore materials and/or to express ideas• Use various construction materials, e.g. joining pieces, stacking vertically and horizontally, balancing, making enclosures and creating spaces• Use tools for a purpose• Use everyday materials to explore, understand and represent their world – ideas, interests and fascinations• Use available resources to create props or creates imaginary ones to support play					



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	Autumn 1	Autumn 2	Spring 1 <i>Links to literacy</i> <i>Blue Penguin: Zig zag books</i>	Spring 2: <i>Links to literacy</i> <i>Yucky Worms: Making minibeasts</i> Easter crafts	Summer 1 <i>Links to literacy:</i> <i>Errol's Garden: Designing gardens</i>	Summer 2 <i>Links to literacy</i> <i>The Naughty bus: Junk modelling vehicles</i> Hyde Hall visit: Craft activities on site
	<i>Children access a well-stocked creative area as well as a wide range of construction toys inside and out alongside small and large loose parts. They use these to construct in line with their current interests and fascinations supported by adults in the setting during their time in provision</i>					
Reception (EYFS: Expressive Arts & Design: Being Imaginative and Expressive, Creating with Materials)	<p>Uses various construction materials, e.g. joining pieces, stacking vertically and horizontally, balancing, making enclosures and creating spaces</p> <p>Uses tools for a purpose</p> <p>Uses available resources to create props or creates imaginary ones to support play</p>		<p>Uses their increasing knowledge and understanding of tools and materials to explore their interests and enquiries and develop their thinking</p> <p>Develops their own ideas through experimentation with diverse materials, e.g. loose parts to express and communicate their discoveries and understanding.</p> <p>Uses available resources to create props or creates imaginary ones to support play</p> <p>Responds imaginatively to art works and objects, e.g. <i>this music sounds likes dinosaurs, that sculpture is squishy like this [child physically demonstrates], that peg looks like a mouth</i></p> <p>Uses combinations of art forms, making and constructing.</p>		<p>Uses their increasing knowledge and understanding of tools and materials to explore their interests and enquiries and develop their thinking</p> <p>Develops their own ideas through experimentation with diverse materials, e.g. loose parts to express and communicate their discoveries and understanding.</p> <p>Uses available resources to create props or creates imaginary ones to support play</p> <p>Responds imaginatively to art works and objects, e.g. <i>this music sounds likes dinosaurs, that sculpture is squishy like this [child physically demonstrates], that peg looks like a mouth</i></p> <p>Uses combinations of art forms, making and constructing.</p>	



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Year 1 POR = Power of Reading		<p>Making free standing structures – igloo</p> <p><i>Design - design purposeful, functional, appealing products for themselves and other users based on design criteria</i></p> <p><i>Make - 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 characteristics</i></p> <p><i>Evaluate - explore and evaluate a range of existing products evaluate their ideas and products against design criteria</i> Technical knowledge- build structures, exploring how they can be made stronger, stiffer and more stable</p>		<p>Sliders and Leavers – pop up plants</p> <p><i>Design - design purposeful, functional, appealing products for themselves and other users based on design criteria</i></p> <p><i>Make - select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</i></p> <p><i>select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</i> Evaluate - explore and evaluate a range of existing products</p>		<p>Food DT - Fruit salad</p> <p><i>select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</i></p> <p><i>use the basic principles of healthy and varied diet to prepare dishes</i></p> <p><i>understand where food comes from.</i></p>



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Year 2		<p>Textiles – Designing a puppet</p> <p><i>Design - design purposeful, functional, appealing products for themselves and other users based on design criteria</i></p> <p><i>generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</i></p> <p><i>Make - select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</i></p>		<p>Mechanisms - Design, create & evaluate model cars</p> <p><i>Design - generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</i></p> <p><i>Make - select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</i></p> <p><i>select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</i></p> <p><i>Evaluate - evaluate their ideas and products against design criteria</i></p> <p><i>Technical knowledge - explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</i></p>		<p>Create a healthy snack/meal – salad wraps</p> <p><i>Design - design purposeful, functional, appealing products for themselves and other users based on design criteria</i></p> <p><i>Cooking and nutrition - use the basic principles of a healthy and varied diet to prepare dishes</i></p> <p><i>understand where food comes from.</i></p>



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	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 3		<p>Design and make a medicine box for a particular purpose</p> <p><i>Design - 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</i></p> <p><i>generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</i></p> <p><i>Make - select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</i></p> <p><i>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</i></p> <p><i>Evaluate - investigate and analyse a range of existing products</i></p> <p><i>evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</i></p>		<p>Design and make a mechanism – Easter Card</p> <p><i>Design - 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</i></p> <p><i>generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</i></p> <p><i>Make - select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</i></p> <p><i>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</i></p> <p><i>Evaluate - investigate and analyse a range of existing products</i></p> <p><i>evaluate their ideas and products against their own design criteria and consider</i></p>	<p>Making Pizza (Roman Taste Testing) Make products applying knowledge of nutrition and health and safety practices whilst working with food.</p> <p><i>Design - 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</i></p> <p><i>generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</i></p> <p><i>Make - select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</i></p> <p><i>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</i></p>	



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				<i>the views of others to improve their work</i>	Evaluate - investigate and analyse a range of existing products <i>evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</i>	



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	Autumn 1	Autumn 2	Spring 1 & 2		Summer 1	Summer 2
Year 4		<p>Cooking and nutrition – Greek Bread Preparation olives, cheese, design bread, plait fold, roll etc</p>	<p>Make do and mend - Toys</p> <p><i>Design - 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</i></p> <p><i>generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</i></p> <p><i>Make - select from and use a wider range of tools and equipment to perform practical tasks [for example, 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</i></p> <p><i>Evaluate - investigate and analyse a range of existing products</i></p> <p><i>evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</i></p>			<p>Electrical Circuits-alarms</p> <p>Designing • Gather information about needs and wants, and develop design criteria to inform the design of products that are fit for purpose, aimed at particular individuals or groups.</p> <p>Generate, develop, model and communicate realistic ideas through discussion and, as appropriate, annotated sketches, cross-sectional and exploded diagrams.</p> <p>Making • Order the main stages of making. • Select from and use tools and equipment to cut, shape, join and finish with some accuracy. • Select from and use materials and components, including construction materials and electrical components according to their functional properties and aesthetic qualities.</p> <p>Evaluating • Investigate and analyse a range of existing battery-powered products.</p> <p>Evaluate their ideas and products against their own design criteria and identify the strengths and areas for improvement in their work.</p>



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			<i>understand how key events and individuals in design and technology have helped shape the world</i>			Technical knowledge and understanding • Understand and use electrical systems in their products, such as series circuits incorporating switches, bulbs and buzzers. Apply their understanding of computing to program and control their products. • Know and use technical vocabulary relevant to the project.
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		Autumn 1 & 2		Spring 1	Spring 2	Summer 1 & 2	
		Year 5		<p>Shadufs</p> <p>Design - 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</p> <p>generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</p> <p>Make - select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</p> <p>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</p> <p>Evaluate - investigate and analyse a range of existing products</p> <p>evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</p> <p>understand how key events and individuals in design and technology have helped shape the world</p>		<p>Scented drawstring bags- sewing</p> <p><i>Design - 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</i></p> <p><i>generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</i></p> <p><i>Make - select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</i></p> <p><i>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</i></p> <p><i>Evaluate - investigate and analyse a range of existing products</i></p> <p><i>evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</i></p>	<p>Food Technology – outdoor learning – Tudor Stew</p>



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		<p>Technical knowledge - apply their understanding of how to strengthen, stiffen and reinforce more complex structures</p> <p>understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</p>		<p><i>understand how key events and individuals in design and technology have helped shape the world</i></p> <p>Technical knowledge - apply their understanding of how to strengthen, stiffen and reinforce more complex structures</p>		
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	Autumn 1 & 2	Spring 1	Spring 2	Summer 1 & 2	
Year 6	<p style="text-align: center;">Victorian Cushions - Textiles</p> <p><i>Design - 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</i></p> <p><i>generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</i></p> <p>Make - select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</p> <p><i>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</i></p> <p>Evaluate - investigate and analyse a range of existing products</p> <p><i>evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</i></p> <p><i>understand how key events and individuals in design and technology have helped shape the world</i></p>			<p style="text-align: center;">Electrical Board Games</p> <p>Design - 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</p> <p><i>generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</i></p> <p>Make - select from and use a wider range of tools and equipment to perform practical tasks [for example, 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</p> <p>Evaluate - 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</p>	<p style="text-align: center;">Cooking – Bake Off (healthy snacks)</p> <p>Cooking and nutrition - understand and apply the principles of a healthy and varied diet</p> <p><i>prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</i></p> <p><i>understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed</i></p>



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		<p>Technical knowledge - apply their understanding of how to strengthen, stiffen and reinforce more complex structures</p> <p>apply their understanding of computing to program, monitor and control their products.</p>			<p>Technical knowledge - apply their understanding of how to strengthen, stiffen and reinforce more complex structures</p> <p>apply their understanding of computing to program, monitor and control their products.</p>	
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