

Cranford Park CE Primary School

Subject Overview for Design Technology

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Title of unit Main Objectives /Skills	Title of unit Main Objectives /Skills	Title of unit Main Objectives /Skills	Title of unit Main Objectives /Skills	Title of unit Main Objectives /Skills	Title of unit Main Objectives /Skills
Foundation Stage	Expressive arts and design involves enabling children to explore and play with a wide range of media and materials, as well as providing opportunities and encouragement for sharing their thoughts, ideas and feelings through a variety of activities in art, music, movement, dance, role-play, and design and technology					
Objectives	Exploring and using media and materials They safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function Being imaginative They represent their own ideas, thoughts and feelings through design and technology Independent Activities – Junk Modelling activities each topic					
Early Years	<u>My New School</u>	<u>All About Me</u>	<u>House and Homes</u> 2D house using materials	<u>Celebrations</u>	<u>Mini beast</u> Design and make a mini beast model	<u>Animals and Holidays</u>
Year 1			<u>Joining techniques – make lighthouse keepers lunchbox</u> Design purposeful, functional, appealing products for themselves and other users based on design criteria. Generate, develop, model and communicate their ideas through talking and drawing. Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping,	<u>Cooking- eating plants – which part of the plant are we eating?</u> Generate, develop, model and communicate their ideas through talking and drawing. Use the basic principles of a healthy and varied diet to prepare dishes Understand where food comes from.		<u>Textiles – make a peg bag</u> Design purposeful, functional, appealing products for themselves and other users based on design criteria Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] Explore and evaluate a range of existing products

Cranford Park CE Primary School

Subject Overview for Design Technology

			<p>joining and finishing]</p> <p>build structures, exploring how they can be made stronger, stiffer and more stable</p> <p>Evaluate their ideas and products against design criteria</p>			Evaluate their ideas and products against design criteria
Year 2	<p><u>Construction – making rockets and aliens using papier mache.</u></p> <p>Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.</p> <p>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p> <p>Evaluate their ideas and products against design criteria</p> <p>Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</p>		<p><u>Cooking – recipes from around the globe</u></p> <p>Design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>Use the basic principles of a healthy and varied diet to prepare dishes</p> <p>Understand where food comes from.</p> <p>Select from and use a wide range of ingredients, according to their characteristics</p>		<p><u>Clay</u></p> <p>Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p> <p>Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</p> <p>Build structures, exploring how they can be made stronger, stiffer and more stable</p> <p>evaluate their ideas and products against design criteria</p>	

Cranford Park CE Primary School

Subject Overview for Design Technology

<p>Year 3</p>	<p><u>Food- Design, make, evaluate a healthy sandwich and create packaging for it.</u></p> <p>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 and prototypes</p> <p>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>Investigate and analyse a range of existing products</p> <p>Understand and apply the</p>	<p><u>Textiles- design , make, evaluate puppet made with materials</u></p> <p>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>Select from and use a wider range of materials and components, including construction materials and textiles according to their functional properties and aesthetic qualities</p> <p>Investigate and analyse a range of existing products</p>				<p><u>Construction- magnet based game</u></p> <p>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 and annotated sketches</p> <p>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>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>

Cranford Park CE Primary School

Subject Overview for Design Technology

	<p>principles of a healthy and varied diet</p> <p>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</p>					
Year 4	<p><u>Light up mummy</u></p> <p>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>Understand how key events and individuals in design and technology have helped shape the world</p> <p>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures</p> <p>Understand and use electrical systems in their products [for example</p>	<p><u>Making musical instruments</u></p> <p>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 and prototypes</p> <p>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><u>Anglo Saxon house – clay work</u></p> <p>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>Understand how key events and individuals in design and technology have helped shape the world</p> <p>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures</p>			<p><u>Cooking – designing a healthy salad/fruit salad</u></p> <p>Understand and apply the principles of a healthy and varied diet</p> <p>Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</p>

Cranford Park CE Primary School

Subject Overview for Design Technology

	switches and bulbs]					
Year 5			<p><u>Cams – Moon Landing/Mission to Mars</u></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>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>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>understand how key events and individuals in design and technology have helped shape the world</p> <p>apply their understanding of</p>	<p><u>Spanish food?? (Cooking)</u></p> <p>Understand and apply the principles of a healthy and varied diet</p> <p>prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</p> <p>Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</p>		<p><u>Embroidery (Textile)</u></p> <p>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 annotated sketches, pattern pieces and computer-aided design</p> <p>Select from and use a wider range of textiles according to their functional properties and aesthetic qualities</p> <p>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</p>

Cranford Park CE Primary School

Subject Overview for Design Technology

			<p>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>			
Year 6		<p><u>Food – rationing</u></p> <p>Understand and apply the principles of a healthy and varied diet</p> <p>Select from and use a wider range ingredients, according to their functional properties</p> <p>Understand how key events and individuals in design and technology have helped shape the world</p> <p>Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</p> <p>Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</p>			<p><u>Construction – buggies</u></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>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><u>Batik Cushions</u></p> <p>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, pattern pieces and computer-aided design</p> <p>Select from and use a wider range of materials and textiles according to their functional properties and aesthetic qualities</p> <p>Evaluate their ideas and products against their own design criteria and consider</p>

Cranford Park CE Primary School

Subject Overview for Design Technology

					<p>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</p> <p>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures</p> <p>understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]</p>	<p>the views of others to improve their work.</p>
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Aims

The national curriculum for design and technology aims to ensure that all pupils:

- develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world**
- build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users**
- critique, evaluate and test their ideas and products and the work of others**
- understand and apply the principles of nutrition and learn how to cook.**

Cranford Park CE Primary School

Subject Overview for Design Technology

NB ICT link needed to cover objective: *apply their understanding of computing to program, monitor and control their products.* Must use in upper KS2