

Design Technology Long Term Overview

	At the end of Autumn term a Y1 Designer can...	At the end of Spring term a Y1 Designer can...	At the end of Summer term a Y1 Designer can...
	Autumn	Spring	Summer
Y1	<p>Mechanisms Moving Pictures</p> <p>Design purposeful, functional & appealing products. Generate, model & communicate ideas. Use range of tools & materials to complete practical tasks. Evaluate existing products & own ideas. Build and improve structure & mechanisms.</p>	<p>Structures - homes</p> <p>Design purposeful, functional & appealing products. Generate, model & communicate ideas. Use range of tools & materials to complete practical tasks. Evaluate existing products & own ideas. Build and improve structure & mechanisms.</p>	<p>Food Fruit & Veg.</p> <p>Design purposeful, functional & appealing products. Generate, model & communicate ideas. Use range of tools & materials to complete practical tasks. Evaluate existing products & own ideas.</p> <p style="text-align: center;">Understand where food comes from.</p>
	At the end of Autumn term a Y2 Designer can...	At the end of Spring term a Y2 Designer can...	At the end of Summer term a Y2 Designer can...
Y2	<p style="text-align: center;">Vehicles</p> <p>Design purposeful, functional & appealing products. Generate, model & communicate ideas. Use range of tools & materials to complete practical tasks. Evaluate existing products & own ideas. Build and improve structure & mechanisms</p>	<p style="text-align: center;">Puppets</p> <p>Design purposeful, functional & appealing products. Generate, model & communicate ideas. Use range of tools & materials to complete practical tasks. Evaluate existing products & own ideas. Build and improve structure & mechanisms</p>	<p style="text-align: center;">Food</p> <p>Design purposeful, functional & appealing products. Generate, model & communicate ideas. Use range of tools & materials to complete practical tasks. Evaluate existing products & own ideas.</p> <p style="text-align: center;">Understand where food comes from.</p>

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	At the end of Autumn term a Y3 Designer can...	At the end of Spring term a Y3 Designer can...	At the end of Summer term a Y3 Designer can...
Y3	<p>Mechanisms</p> <p>understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</p> <p>apply their understanding of computing to program, monitor and control their products.</p>	<p>Shell Structures</p> <p>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>Food</p> <p>Healthy Sandwiches</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>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>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>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>			

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	At the end of Autumn term a Y4 Designer can...	At the end of Spring term a Y4 Designer can...	At the end of Summer term a Y4 Designer can...
Y4	<p>Food Pizza 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>Textiles 2D shape into 3D product</p>	<p>Electrical Systems Simple Circuits and Switches understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]</p> <p>apply their understanding of computing to program, monitor and control their products.</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, 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>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>			

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	At the end of Autumn term a Y5 Designer can...	At the end of Spring term a Y5 Designer can...	At the end of Summer term a 5 Designer can...
Y5	<p style="text-align: center;"><u>Mechanical systems</u> Make car/tank as DT project</p> <p><u>Food</u> Trench cake 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>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 style="text-align: center;"><u>Food - celebrating culture and seasonality</u> Research and design an African Masks for the Goli festival</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>apply their understanding of how to strengthen, stiffen and reinforce more complex structures</p>	<p style="text-align: center;"><u>Structures/ shelters</u> Greek temples - test for strength and rigidity</p> <p>apply their understanding of how to strengthen, stiffen and reinforce more complex structures</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, 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>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>			

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	At the end of Autumn term a Y6 Designer can...	At the end of Spring term a Y6 Designer can...	At the end of Summer term a Y6 Designer can...
Y6	Food Technology (Soup) 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.	Textiles (Fashion Fix - sustainability)	Electrical Systems understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] apply their understanding of computing to program, monitor and control their products.
<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, 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>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>			

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Please note that continuation of skills is also shown through the construction of *Christmas Cards*. All Year groups look at levers and linkages and include one of the appropriate level of difficulty within their *Christmas Card*.