

Knowledge Progression in Design and Technology

Y1	Y2	Y3	Y4	Y5	Y6
<ul style="list-style-type: none"> design purposeful, functional, appealing products for themselves and other users based on design criteria 	<ul style="list-style-type: none"> design purposeful, functional, appealing products for themselves and other users based on design criteria generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology 	<ul style="list-style-type: none"> 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 generate, develop, model and communicate their ideas through discussion, annotated sketches 	<ul style="list-style-type: none"> 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 generate, develop, model and communicate their ideas through discussion, annotated sketches and cross-sectional diagrams 	<ul style="list-style-type: none"> 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 generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams and computer-aided design 	<ul style="list-style-type: none"> 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 generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces
Notes on Differentiation					
<p>Children design simple houses with basic features.</p> <p>Design criteria includes designs for hinges and</p>	<p>Children design more complex architectural structures- windmills.</p> <p>Design criterion includes strengthening bases and how to</p>	<p>Based on research, design criterion includes decoration for a specific purpose and to suit a specific style and working with limited materials</p>	<p>Children design further complex structures (Mayan Temples), considering how to ensure the end result is sturdy (calling on KS1 knowledge).</p>	<p>Based on research, design criterion will include working with a wider range of products (to create own chocolate) and call on Y2 knowledge of</p>	<p>Based on research, design criterion will include considering decoration in more detail that adhere to a specific style of sculpture</p>

<p>how to strengthen a simple building structure</p>	<p>create a structure which spins on an axis.</p> <p>Children will discuss and record their ideas simple</p>	<p>Children will create sketches with basic features annotated</p>	<p>Based on research, the criteria will include decoration and creating staircases.</p> <p>Children will create sketches with more attention to detail</p>	<p>axis to consider how steam power can create movement</p> <p>Children will create sketches with further attention to detail</p>	
<ul style="list-style-type: none"> • select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics • build structures, exploring how they can be made stronger, stiffer and more stable • select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] 	<ul style="list-style-type: none"> • select from and use a wide range of materials and components, including construction materials and textiles according to their characteristics • build structures, exploring how they can be made stronger, stiffer and more stable • explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. 	<ul style="list-style-type: none"> • select from and use a wider range of tools and equipment to perform practical tasks • select from and use a wider range of materials and components, including textiles and ingredients. 	<ul style="list-style-type: none"> • select from and use a wider range of tools and equipment to perform practical tasks • select from and use a wider range of materials and components, including construction materials and ingredients. 	<ul style="list-style-type: none"> • select from and use a wider range of tools and equipment to perform practical tasks 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 	<ul style="list-style-type: none"> • 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, according to their functional properties and aesthetic qualities
<p>Differentiation Notes</p>					

<p>Children consider how to strengthen a building</p>	<p>Children consider how to strengthen foundations of a building</p>	<p>Children focus on paper and card based materials and related appropriate tools.</p> <p>Use of some basic cooking/baking tools to make sandwiches</p>	<p>Children focus on clay based materials and related appropriate tools</p> <p>Use of some basic cooking/baking tools to make bread</p>	<p>Children focus on card based materials and related appropriate tools, using them with further accuracy with specific dimensions.</p> <p>Use of some cooking/baking tools to make chocolate (various fillings)</p>	<p>Children focus on wood based materials and related appropriate tools</p>
<ul style="list-style-type: none"> • explore and evaluate a range of existing products • evaluate their ideas and products against a simple design criterion 	<ul style="list-style-type: none"> • explore and evaluate a wider range of existing products • evaluate their ideas and products against a more detailed design criterion • about the work of a range of artists, craft makers and designers, describing the differences and similarities between different practices and disciplines, and making links to their own work. 	<ul style="list-style-type: none"> • evaluate their ideas and products against their own design criteria 	<ul style="list-style-type: none"> • evaluate their ideas and products against their own design criteria and consider the views of others to improve their work 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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>Differentiation Notes</p>					

				<p>Compare own final products with those which already exist</p> <p>Consider how steam power shaped the world</p>	<p>Compare and evaluate own final products against those which already exist</p> <p>Consider how an Ancient Civilisation still impacts on modern life</p>
			<ul style="list-style-type: none"> • apply their understanding of how to strengthen, stiffen and reinforce more complex structures (Mayan pyramid) 	<ul style="list-style-type: none"> • understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] (Space ship) • understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] (Space ship) • apply their understanding of computing to program, monitor and control their products. (Space ship) 	
Differentiation Notes					

		<ul style="list-style-type: none"> • 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 (<i>sandwiches</i>) 	<ul style="list-style-type: none"> • prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques (<i>bread making</i>) • understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. 	<ul style="list-style-type: none"> • understand and apply the principles of a healthy and varied diet 	<ul style="list-style-type: none"> • understand and apply the principles of a healthy and varied diet (<i>Typical Greek food</i>) • prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques
Differentiation Notes					
		<p>Consider how a healthy diet could be achieved with limited ingredients</p> <p>Use some cooking techniques and prepare some savoury dishes</p>	<p>Build on Y3 by using further cooking techniques and prepare further savoury dishes</p>	<p>Discuss importance of a balanced diet when considering "treat" foods</p>	<p>Build on previous cooking skills to prepare Ancient Greek/Greek style food</p>