



**Design and Technology Knowledge and Skills Progression**

YEAR GROUP	Creating	VOCABULARY
EYFS	<p><b>Creating with Materials</b>            Early Learning goals:</p> <p><b>They safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</b></p> <p><b>Share their creations, explaining the processes they have used.</b>  <b>Make use of props and materials when role playing characters in narratives and stories.</b></p> <p><b>Knowledge:</b></p> <ul style="list-style-type: none"> <li>- Children can name materials they are using.</li> <li>- Children can talk about their initial designs based on their life experiences and imagination</li> <li>- They know that other children may have the same idea e.g. building a house but it is ok for the finished products to have similarities and differences.</li> <li>- Children know that they can manipulate and attach materials together.</li> </ul>	<p>build, buildings, plan, draw, cut, stick, make, glue, celloptape, mark, pencil, pen, crayon, <b>paint</b></p> <p>masking tape, design, balance, pull, push, think about, junk modelling, box, container, bricks, materials, change, move.</p> <p><b>Cross curricular vocabulary:</b> shape, printing, colour, feel, on top, underneath, next to, stack.</p>



	<b>Skills:</b> <ul style="list-style-type: none"> <li>- Individual interactions between children or children and adults.</li> <li>- Following children’s interests and questions about designing.</li> <li>- Knowing the child, mindful of the journey they are on building on prior learning and understanding- building on and developing/extending vocabulary.</li> <li>- Transition from home to Nursery into Year One.</li> <li>- In the moment interactions i.e. ‘I’m building a tower’, ‘this is my house’.</li> </ul>				
	<ul style="list-style-type: none"> <li>- Beginning to use design based language – language associated with manipulating, designing and changing desired outcomes;- <i>also recalling observations of their own environments e.g. shapes of buildings from prior learning through photos/pictures/own mark making/writing/pictures.</i></li> <li>- Developing a sense of material enquiry; <i>how can I attach this? Does it bend only forwards?</i></li> <li>- Use comparison and contrast, similarity and differences, variety within their design and outcomes.</li> <li>- Beginning to draw on a narrative and sequence and a sense of chronology and duration of their desired outcome- how their model was designed (in their minds) built, adapted through to the final finished product.</li> <li>- An introduction to handling new tools to manipulate materials to gain their desired outcome.</li> </ul>				
	<b>DESIGN</b>	<b>MAKE</b>	<b>EVALUATE</b>	<b>TECHNICAL KNOWLEDGE</b>	<b>COOKING AND NUTRITION</b>



<p><b>EYFS</b></p>	<ul style="list-style-type: none"> <li>• Begin to use the language of designing and making, e.g. join, build and shape.</li> <li>• Learning about planning and adapting initial ideas to make them better. Children will be encouraged to mark make/draw their ideas onto paper.</li> </ul>	<ul style="list-style-type: none"> <li>• To learn to construct with a purpose in mind. Junk modelling, construction and creative station-selects tools and techniques needed to shape, assemble and join materials.</li> </ul>	<ul style="list-style-type: none"> <li>• Child's perception-children can talk about their likes and dislikes about their designs and desired outcome.</li> <li>• Child and adult interaction-begin to talk about changes made during the making process, e.g. making a decision to use a different joining method.</li> </ul>	<ul style="list-style-type: none"> <li>• To be able to name the tools they are using.</li> <li>• To learn how to use a range of tools, e.g. scissors, hole punch, stapler, , rolling pins, pastry cutters.</li> <li>• Learn how everyday work objects by touching, observing and dismantling them.</li> </ul>	<ul style="list-style-type: none"> <li>• To begin to understand some of the tools, techniques and processes involved in food preparation. <b>For example, sandwich making, baking cakes and melting.</b></li> </ul>
					<ul style="list-style-type: none"> <li>• Children have basic hygiene awareness.</li> </ul>
	<p><b>DESIGN</b></p>	<p><b>MAKE</b></p>	<p><b>EVALUATE</b></p>	<p><b>TECHNICAL KNOWLEDGE</b></p>	<p><b>COOKING AND NUTRITION</b></p>



<b>Year 1</b>	<b>Learning outcomes:</b> <ul style="list-style-type: none"> <li>• Develop purposeful products based on a given criteria for themselves and others</li> <li>• Develop ideas through talking</li> <li>• Model and communicate ideas through drawing and making models</li> </ul>	<b>Learning outcomes:</b> <ul style="list-style-type: none"> <li>• Select from and use some tools and equipment to perform practical tasks e.g. cutting and shaping</li> <li>• Start to select from and use different materials and components, including construction materials, textiles and ingredients</li> </ul>	<b>Learning outcomes:</b> <ul style="list-style-type: none"> <li>• Explore and evaluate a range of existing products</li> <li>• Discuss ideas and products with others</li> <li>• Evaluate ideas and products against design criteria</li> </ul>	<b>Learning outcomes:</b> <ul style="list-style-type: none"> <li>• Explore and use mechanisms (for example, sliders, wheels in their products)</li> </ul>	<b>Learning outcomes:</b> <ul style="list-style-type: none"> <li>• Begin to use the basic principles of a healthy and varied diet to prepare dishes</li> <li>• Begin to understand where food comes from</li> </ul>
<b>VOCABULARY</b>	product, criteria, idea, model	cutting, shaping, materials	evaluate	Mechanisms, levers, sliders and axles	healthy diet
	<b>DESIGN</b>	<b>MAKE</b>	<b>EVALUATE</b>	<b>TECHNICAL KNOWLEDGE</b>	<b>COOKING AND NUTRITION</b>
<b>Year 2</b>	<b>Learning outcomes:</b> <ul style="list-style-type: none"> <li>• Develop purposeful, functional and appealing products based on a given criteria for themselves and others</li> <li>• Develop ideas through talking</li> </ul>	<b>Learning outcomes:</b> <ul style="list-style-type: none"> <li>• Select from and use a range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing</li> <li>• Select from and use a wide range of materials</li> </ul>	<b>Learning outcomes:</b> <ul style="list-style-type: none"> <li>• Explore and evaluate a range of existing products</li> <li>• Discuss ideas and products with others</li> <li>• Evaluate ideas and products against design criteria</li> </ul>	<b>Learning outcomes:</b> <ul style="list-style-type: none"> <li>• Build simple structures</li> <li>• Explore ways of making their structure stronger and more stable</li> </ul>	<b>Learning outcomes:</b> <ul style="list-style-type: none"> <li>• Use the basic principles of a healthy and varied diet to prepare dishes</li> <li>• Understand where food comes from</li> </ul>



	<ul style="list-style-type: none"> <li>Model and communicate ideas through drawing and making models</li> <li>Begin to use extra information and technology to communicate ideas</li> </ul>	and components, including construction materials, textiles and ingredients according to their characteristics			
<b>VOCABULARY</b>	product, criteria, idea, model, information	cutting, shaping, joining, finishing, materials, components	evaluate	structure support strengthen	healthy diet, varied diet
	<b>DESIGN</b>	<b>MAKE</b>	<b>EVALUATE</b>	<b>TECHNICAL KNOWLEDGE</b>	<b>COOKING AND NUTRITION</b>



<p><b>Year 3</b></p>	<p><b>Learning outcomes:</b></p> <ul style="list-style-type: none"> <li>• Begin to use research to develop designs</li> <li>• Develop appealing products that are designed for a particular purpose</li> <li>• Generate, develop and communicate ideas through discussion with others</li> <li>• Use prototypes to generate, develop and communicate ideas.</li> </ul>	<p><b>Learning outcomes:</b></p> <ul style="list-style-type: none"> <li>• Select from and use a range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing with some accuracy</li> <li>• Select from and use a wide range of materials and components, including construction materials and ingredients according to their functional properties and aesthetic qualities</li> </ul>	<p><b>Learning outcomes:</b></p> <ul style="list-style-type: none"> <li>• Investigate and evaluate a range of existing products</li> <li>• Evaluate their ideas and products against design criteria and seek the views of others to improve their work</li> </ul>	<p><b>Learning outcomes:</b></p> <ul style="list-style-type: none"> <li>• Begin to use mechanical systems in their products (<i>e.g. levers</i>)</li> <li>• Create shell or frame structures</li> <li>• Strengthen frames with diagonal struts and create stability by using a wide base</li> </ul>	<p><b>Learning outcomes:</b></p> <ul style="list-style-type: none"> <li>• Analyse the taste, texture, smell and appearance of a range of foods</li> <li>• Make healthy eating choices from an understanding of a balanced diet</li> <li>• Join and combine a range of ingredients.</li> <li>• Work safely and hygienically</li> <li>• Measure and weigh ingredients appropriately</li> </ul>
<p><b>VOCABULARY</b></p>	<p>research, product, purpose, prototypes</p>	<p>cutting, shaping, joining, finishing, components, functional properties, aesthetic qualities</p>	<p>evaluate, existing products, design criteria</p>	<p>mechanical systems, shell structures, frame structures, diagonal struts, stability, wide base</p>	<p>taste, texture, smell, appearance, balanced diet, combine, hygiene, measure, weigh, ingredients</p>
	<p><b>DESIGN</b></p>	<p><b>MAKE</b></p>	<p><b>EVALUATE</b></p>	<p><b>TECHNICAL KNOWLEDGE</b></p>	<p><b>COOKING AND NUTRITION</b></p>



<p><b>Year 4</b></p>	<p><b>Learning outcomes:</b></p> <ul style="list-style-type: none"> <li>• Use research to develop designs</li> <li>• Develop appealing products that are designed for a particular purpose</li> <li>• Generate, develop and communicate ideas through discussion with others</li> <li>• Use annotated sketches, prototypes, pattern pieces and technology to generate, develop and communicate ideas.</li> </ul>	<p><b>Learning outcomes:</b></p> <ul style="list-style-type: none"> <li>• Select from and use a range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing accurately</li> <li>• Select from and use a wide range of materials and components, including construction materials, textiles and ingredients according to their functional properties and aesthetic qualities</li> </ul>	<p><b>Learning outcomes:</b></p> <ul style="list-style-type: none"> <li>• Investigate and evaluate a range of existing products</li> <li>• Evaluate their ideas and products against design criteria and seek the views of others to improve their work</li> <li>• Understand how key events and individuals in design technology have helped to shape the world</li> </ul>	<p><b>Learning outcomes:</b></p> <ul style="list-style-type: none"> <li>• Incorporate a circuit with a bulb, motor or buzzer into a model.</li> </ul>	<p><b>Learning outcomes:</b></p> <ul style="list-style-type: none"> <li>• Analyse the taste, texture, smell and appearance of a range of foods</li> <li>• Make healthy eating choices from an understanding of a balanced diet</li> <li>• Join and combine a range of ingredients.</li> <li>• Work safely and hygienically.</li> <li>• Measure and weigh ingredients appropriately.</li> <li>• Understand seasonality and know where and how a variety of ingredients are</li> </ul>
					<p>grown, reared, caught and processed</p>



<b>VOCABULARY</b>	research, product, purpose, prototypes annotated sketches, communicate	tools, equipment, finishing accurately, components, construction materials, materials, textiles, ingredients, functional properties, aesthetic qualities	evaluate, existing products, design criteria	circuit, bulb, motor, buzzer	join, combine, work safely, work hygienically, measure, weigh, seasonality, grown, reared, caught, processed
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	DESIGN	MAKE	EVALUATE	TECHNICAL KNOWLEDGE	COOKING AND NUTRITION
Year 5	<p>Y5/6 – Design skills are developed through scientific investigation and planned STEAM sessions which are topic based and cross-curricular. Furthermore, design skills are developed through creative afternoon’s where the design is child lead.</p> <p><b>Learning outcomes:</b></p> <ul style="list-style-type: none"> <li>• Use research and develop criteria to inform design</li> <li>• Develop innovative, functional and appealing products that are aimed at particular individuals</li> </ul>	<p>Y5/6 – Children are taught to use hacksaws, hammers, and hand drills in creative afternoon. Children are also taught to use a sewing machine to create basic stitches. Hand sewing skills are also consolidated and children will be encouraged to independently select more challenging fabrics to work with. They will learn the skills of applique.</p> <p><b>Learning outcomes:</b></p> <ul style="list-style-type: none"> <li>• Select from and use a range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing accurately</li> <li>• Select from and use a wide range of materials and components,</li> </ul>	<p><b>Learning outcomes:</b></p> <ul style="list-style-type: none"> <li>• Investigate and analyse a range of existing products based on functional and aesthetic qualities</li> <li>• Evaluate their ideas and products against their own design criteria</li> <li>• Actively seek and consider the views of others to improve their work</li> <li>• Understand how key events and individuals in design technology have</li> </ul>	<p>Y5 – Children begin to explore different ways to reinforce and strengthen their designs. Y5/6 – Children experience working with pulleys and levers in creative afternoon, planned STEAM sessions and during science investigations. By year 6 children are able to use these with increasing accuracy.</p> <p><b>Learning outcomes:</b></p> <ul style="list-style-type: none"> <li>• Understand and use mechanical systems in their products (e.g. gears, pulleys, levers and linkages and cams)</li> <li>• Apply their understanding of how to reinforce and strengthen increasingly</li> </ul>	<p><b>Learning outcomes:</b></p> <ul style="list-style-type: none"> <li>• Analyse food products taking into account the properties of ingredients and sensory characteristics</li> <li>• Select and prepare foods for a particular purpose</li> <li>• Taste a range of ingredients, food items to develop a sensory food vocabulary for use when designing</li> </ul>



	<p>or groups</p> <ul style="list-style-type: none"> <li>• Generate, develop, and communicate ideas through discussion and begin to actively seeking the views of others.</li> <li>• Use annotated sketches, exploded diagrams, prototypes,</li> </ul>	<p>including construction materials and ingredients according to their functional properties and aesthetic qualities</p>		<p>complex structures using a range of materials</p>
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	<p>pattern pieces and technology to generate, develop, model and communicate ideas</p>		<p>helped to shape the world.</p>		<ul style="list-style-type: none"> <li>• Weigh and measure using scales</li> <li>• Cut and shape ingredients using appropriate tools and equipment <i>e.g. grating</i></li> </ul>
<p><b>VOCABULARY</b></p>	<p>research, criteria, innovative product, functional product, appealing product, annotated sketches, exploded diagrams, pattern pieces</p>	<p>tools, equipment, components, construction materials, materials, ingredients, functional properties, aesthetic qualities</p>	<p>investigate, analyse, existing products, functional properties, aesthetic properties, design criteria</p>	<p>mechanical systems, levers, gears, pulleys, linkages, cams, reinforce, strengthen</p>	<p>properties of ingredients, sensory characteristics, weigh, measure, scales, cut ingredients, shape ingredients</p>



	DESIGN	MAKE	EVALUATE	TECHNICAL KNOWLEDGE	COOKING AND NUTRITION
Year 6	<p>Y6 – Children use digital media, magazines, and the world around them to design functional and appealing products.</p> <p><b>Learning outcomes:</b></p> <ul style="list-style-type: none"> <li>• Use research and develop criteria to inform design</li> <li>• Develop innovative, functional and appealing products that are aimed at particular individuals or groups</li> <li>• Generate, develop, and communicate ideas through</li> </ul>	<p>Y6 – children begin to use hacksaws, hammers and hand drills with increasing independence and accuracy.</p> <p><b>Learning outcomes:</b></p> <ul style="list-style-type: none"> <li>• Select from and use a range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing accurately</li> <li>• Select from and use a wide range of materials and components, including</li> </ul>	<p><b>Learning outcomes:</b></p> <ul style="list-style-type: none"> <li>• Investigate and analyse a range of existing products based on functional and aesthetic qualities</li> <li>• Evaluate their ideas and products against their own design criteria</li> <li>• Actively seek and consider the views of</li> </ul>	<p>Y6 – Children can select the most appropriate ways of strengthening and reinforcing complex structures.</p> <p>Y5/6 – Children use an extensive range of electrical circuits and buzzers as part of the science curriculum. By year 6 children are beginning to transfer these skills to their creative afternoon designs with increasing accuracy.</p> <p><b>Learning outcomes:</b></p> <ul style="list-style-type: none"> <li>• Apply their understanding of computing to program, monitor and control their products</li> </ul>	<p><b>Learning outcomes:</b></p> <ul style="list-style-type: none"> <li>• Analyse food products taking into account the properties of ingredients and sensory characteristics</li> <li>• Select and prepare foods for a particular purpose</li> <li>• Taste a range of ingredients, food</li> </ul>



	<p>discussion, actively seeking the views of others.</p> <ul style="list-style-type: none"> <li>• Use annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and technology to generate, develop, model and communicate ideas</li> </ul>	<p>construction materials, wood, textiles and ingredients according to their functional properties and aesthetic qualities</p>	<p>others to improve their work</p> <ul style="list-style-type: none"> <li>• Understand how key events and individuals in design technology have helped to shape the world.</li> </ul>		<p>items to develop a sensory food vocabulary for use when designing</p> <ul style="list-style-type: none"> <li>• Weigh and measure using scales</li> <li>• Join and combine food ingredients appropriately <i>e.g. beating, rubbing in</i></li> <li>• Work safely and hygienically (hac k saw licence)</li> <li>• Show awareness of a healthy diet from an understanding of a balanced diet</li> </ul>
<p><b>VOCABULARY</b></p>	<p>research, criteria, innovative product, functional product, appealing product, annotated sketches, cross-sectional diagrams, exploded diagrams, pattern pieces</p>	<p>tools, equipment, components, construction materials, materials, textiles, ingredients, functional properties, aesthetic qualities</p>	<p>investigate, analyse, existing products, functional properties, aesthetic properties, design criteria</p>	<p>computer programming, monitor and control</p>	<p>properties of ingredients, sensory characteristics, purpose, weigh, measure, scales, join and combine ingredients, healthy diet</p>