



# Curriculum Skills & Progression

## Design Technology

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Design and Technology  
Design & Technology Unit Overview

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Y1		<b>Fire Engines</b>  (Wheels and axles)	<b>Freestanding Structures</b> (car wash?)			<b>Fruit kebabs</b> (Preparing Fruit and Vegetables)
Y2		<b>Hand puppets</b>  (Textiles)	<b>Sandwiches</b> (preparing fruit and vegetables)			<b>Moving Pictures</b> (Sliders and Levers)
Y3		<b>Moving Christmas cards</b> (Levers and Linkages)		<b>Min-quiches and coleslaw</b> (Healthy & varied Diet)		<b>Treasure Chests</b> (shell structures)
Y4				<b>Torches</b> (simple circuits)	<b>Tomato and vegetable pasta</b> (Healthy & varied Diet)	<b>Bags/purses</b> Textiles
Y5	<b>Shelters</b> Frame structures		<b>CAMs toys</b> Levers & mechanisms	<b>Viking Stew</b> Celebrating seasonality		
Y6				<b>Calzone</b> Celebrating seasonality	<b>Buggies</b> More complex switches	

**Progression of Skills**

<b>Food</b> <b>Textiles</b> <b>Structures</b> <b>Mechanisms</b> <b>Electrical</b>	EYFS	<b>Year 1</b> <b>Fruit Salad</b> <b>Fire Engines</b> <b>Houses</b>	<b>Year 2</b> <b>Salad Sandwiches</b> <b>Hand Puppets</b> <b>Moving pictures</b>	<b>Year 3</b> <b>Mini Quiches and coleslaw</b> <b>Moving Christmas Cards</b> <b>Treasure Chests</b>	<b>Year 4</b> <b>Tomato Pasta Bake</b> <b>Bags/purses</b> <b>Torches</b>	<b>Year 5</b> <b>Viking Stew</b> <b>Cams Toys</b> <b>Shelters</b>	<b>Year 6</b> <b>Calzone</b> <b>Buggies</b>
<b>Developing, planning and communicating ideas.</b>	<ul style="list-style-type: none"> <li>Express their ideas about their product and say what they will do to create it.</li> </ul>	<ul style="list-style-type: none"> <li>Draw on their own experience to help generate ideas</li> <li>Identify the purpose for what they intend to design and make</li> <li>Suggest ideas and explain what they are going to do</li> <li>Develop their design ideas through discussion and labelled drawings</li> </ul>	<ul style="list-style-type: none"> <li>Generate ideas, drawing on their own and other people's experiences</li> <li>Identify a user and purpose for what they intend to design and make</li> <li>Identify simple criteria</li> <li>Suggest ideas and explain what they are going to do when given a selection of equipment and materials</li> <li>Develop their design ideas through discussion, observation , labelled drawing and simple modelling</li> </ul>	<ul style="list-style-type: none"> <li>Generate ideas for an item, considering its purpose and the target user/s</li> <li>establish criteria for a successful product.</li> <li>Think about the order of their work before starting, choosing from a variety of tools and materials</li> <li>Develop their design ideas through discussion, observation , labelled drawing and simple modelling</li> </ul>	<ul style="list-style-type: none"> <li>Generate ideas, for an item, considering its purpose and target user group</li> <li>With support, draw up a simple specification for their design</li> <li>Explore and develop their design ideas through discussion, observation , labelled drawings, exploded diagrams and modelling</li> <li>Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail</li> </ul>	<ul style="list-style-type: none"> <li>Generate ideas through brainstorming and research, using ICT where appropriate</li> <li>Identify a purpose and audience for their product</li> <li>Draw up a specification for their design</li> <li>Communicate their ideas through discussion and detailed labelled drawings using ICT programmes where appropriate, including cross-sectional drawings and exploded diagrams</li> <li>Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making if the first attempts fail</li> </ul>	<ul style="list-style-type: none"> <li>Generate ideas through brainstorming and research , using ICT where appropriate</li> <li>identify a purpose and audience for their product.</li> <li>Develop a design specification</li> <li>Communicate their ideas through discussion and detailed labelled drawings using ICT programmes where appropriate, including cross-sectional drawings and exploded diagrams</li> <li>Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making if the first attempts fail</li> </ul>

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Working with tools, equipment, materials and components to make quality products (inc food)</b>	<ul style="list-style-type: none"> <li>Safely use and explore a variety of materials, tools and techniques, experimenting with design and function.</li> </ul>	<ul style="list-style-type: none"> <li>Make their design using suggested appropriate tools and techniques</li> <li>With support, measure, mark out, cut and shape a range of materials</li> <li>With support, use everyday tools eg ruler, scissors and a hole punch safely</li> <li>Assemble, join and combine materials and components together using a variety of temporary methods e.g. glues or masking tape</li> <li>Understand and use simple axles and wheels</li> <li>Select and use appropriate ingredients, processes and tools</li> <li>Use basic food handling, hygienic practices and personal hygiene</li> <li>Use simple finishing techniques to improve the appearance of their product</li> </ul>	<ul style="list-style-type: none"> <li>Begin to select tools and materials; use vocab' to name and describe them</li> <li>With support, Measure, mark out, cut and score a range of materials with some accuracy</li> <li>Use a range of hand tools safely and appropriately, eg ruler, scissors, hole punch, stapler, sewing needle, saw</li> <li>Assemble, join and combine materials using a variety of methods</li> <li>Use simple sliders, and levers to create movement in products</li> <li>Cut, shape and join fabric using basic sewing techniques</li> <li>Select and use appropriate ingredients, processes and tools</li> <li>Use basic food handling, hygienic practices and personal hygiene</li> </ul>	<ul style="list-style-type: none"> <li>Select tools and techniques for making their product</li> <li>Measure, mark out, cut, score and assemble a range materials with more accuracy</li> <li>Develop and use 2D nets to create 3D structures.</li> <li>Use a range of hand tools safely and appropriately, eg ruler, scissors, hole punch, stapler,</li> <li>Use levers and linkages in products</li> <li>Think about their ideas as they make progress and be willing change things if this helps them improve their work</li> <li>Select and use appropriate ingredients, processes and tools</li> <li>Demonstrate hygienic food preparation and storage</li> <li>Use finishing techniques strengthen and improve the appearance of their product using a range of equipment</li> </ul>	<ul style="list-style-type: none"> <li>Suggest and select tools and techniques for making their product</li> <li>Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques Join and combine materials and components accurately</li> <li>Use 3a range of hand tools safely and appropriately, eg scissors, stapler, sewing needle</li> <li>Measure, tape or pin, cut and join fabric with some accuracy. Add embellishment using sewing techniques.</li> <li>Think about their ideas as they make progress and be willing change things if this helps them improve their work</li> <li>Use simple electrical circuits in products</li> <li>Use finishing techniques strengthen and improve the appearance of</li> </ul>	<ul style="list-style-type: none"> <li>Suggest and select appropriate materials, tools and techniques for making their product</li> <li>Measure and mark out, cut and shape a range of materials with accuracy</li> <li>use different tools and equipment safely and accurately to join and combine materials and components.</li> <li>a range of hand tools safely and appropriately, eg scissors, hole punch, stapler, saw, glue gun</li> <li>Make necessary modifications as they go along</li> <li>Understand how to strengthen, stiffen and reinforce 3-D frameworks to create frame structures.</li> <li>select and use appropriate ingredients, processes and tools, including</li> </ul>	<ul style="list-style-type: none"> <li>Select appropriate tools, materials, components and techniques for making their product</li> <li>Measure and mark out, cut and shape a range of materials with accuracy</li> <li>use different tools and equipment safely and accurately to join and combine materials and components.</li> <li>Construct products using permanent joining techniques <ul style="list-style-type: none"> <li>Use a range of hand tools safely and appropriately, eg scissors, hole punch, stapler, saw, glue gun, craft knife, soldering iron</li> </ul> </li> <li>Make necessary modifications as they go along</li> <li>Use electrical systems in products e.g. moving vehicle</li> <li>Use finishing techniques strengthen and improve the appearance of their product using a range of equipment including ICT to create a high quality product</li> <li>select and use appropriate ingredients, processes and tools , including the hob and oven</li> <li>Apply the rules for basic food hygiene and other safe practices</li> </ul>

			<ul style="list-style-type: none"> <li>Choose and use appropriate finishing techniques</li> </ul>	including ICT	<p>their product using a range of equipment including ICT</p> <ul style="list-style-type: none"> <li>select and use appropriate ingredients, processes and tools, including the hob and oven</li> <li>Demonstrate hygienic food preparation and storage</li> </ul>	<p><b>hob and oven</b></p> <ul style="list-style-type: none"> <li>Apply the rules for basic food hygiene and other safe practices e.g. hazards relating to the use of ovens</li> <li>Use finishing techniques strengthen and improve the appearance of their product using a range of equipment including ICT to create a high quality product</li> <li>Understand how mechanical systems such as cams or pulleys or gears create movement.</li> </ul>	e.g. hazards relating to the use of ovens
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	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Evaluating processes and products</b>	<ul style="list-style-type: none"> <li>• Share their creations, explaining the process they have used</li> <li>• Express their ideas and feelings about their product and the experience of making it</li> </ul>	<ul style="list-style-type: none"> <li>• Talk about their product, saying what they like and dislike about it and discussing how well it works in relation to the purpose and original design.</li> <li>• Talk about the making process and what went well and difficulties they overcame</li> </ul>	<ul style="list-style-type: none"> <li>• Talk about their product, saying what they like and dislike about it and discussing how well it works in relation to the purpose and original design.</li> <li>• Evaluate against given criteria</li> <li>• Talk about the making process and what went well and difficulties they overcame</li> <li>• Identify strengths and possible changes they might make</li> </ul>	<ul style="list-style-type: none"> <li>• Disassemble and evaluate familiar products in order to create own design</li> <li>• Talk about the making process and what went well and difficulties they overcame</li> <li>• Identify strengths and possible changes they might make</li> <li>• Evaluate their product against original design criteria e.g. how well it meets its intended purpose,</li> </ul>	<ul style="list-style-type: none"> <li>• Disassemble and evaluate familiar products in order to create own design</li> <li>• Evaluate their work during and at the end of the assignment and identify strengths and difficulties</li> <li>• Evaluate their product against original design criteria e.g. how well it meets its intended purpose,</li> <li>• Evaluate their products carrying out appropriate test, using set criteria</li> </ul>	<ul style="list-style-type: none"> <li>• Disassemble and evaluate existing products in order to create own design</li> <li>• Evaluate their products, against the design specification, identifying strengths and areas for development, and carrying out appropriate tests</li> <li>• Evaluate their own work and seek evaluation from others</li> </ul>	<ul style="list-style-type: none"> <li>• Disassemble and evaluate existing products in order to create own design</li> <li>• Evaluate their products, against the design specification, identifying strengths and areas for development, and carrying out appropriate tests</li> <li>• Evaluate their own work and seek evaluation from others</li> </ul>
<b>Suggested events and individuals who have helped shape the world</b>	<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>			<a href="https://www.qualitylogoproducts.com/promo-university/history-of-flashlights.htm">https://www.qualitylogoproducts.com/promo-university/history-of-flashlights.htm</a>	<a href="http://re.trotoys.com/article/mechanical-toys-history/">http://re.trotoys.com/article/mechanical-toys-history/</a>	