



### DT Progression of skills 2021-2022

#### Year 6 leaver vision statement

A Bathwick Year 6 leaver will have the creative, technical, and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world. They will know how to manage and control risks, work safely with a variety of tools and materials, be resourceful, innovative, enterprising, and capable.

We hope that the children will use their creativity, imagination, and social interaction skills to design and make products that solve real and relevant problems in a variety of contexts – understanding the processes involved from planning through making to evaluation and refinement. Children will also have developed the life skills and knowledge associated with healthy living, food nutrition and cookery.

Through the evaluation of past and present design and technology, the children will have developed a critical understanding of its impact on daily life and the wider world; gaining an appreciation that it is an on-going cycle of evaluation and re-invention.

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
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## Progression of Skills in Design Technology

<p><b>Design</b></p>	<ul style="list-style-type: none"> <li>• Share their creations with others and talk about what they have made</li> </ul>	<ul style="list-style-type: none"> <li>• Generate initial ideas and simple design criteria through talking and using own experiences</li> <li>• Develop and communicate ideas through drawings and mock-ups</li> </ul>	<ul style="list-style-type: none"> <li>• Generate ideas based on simple design criteria and their own experiences, explaining what they could make</li> <li>• Develop, model, and communicate their ideas through drawings and mock-ups with card and paper</li> </ul>	<ul style="list-style-type: none"> <li>• Generate realistic ideas and design criteria collaboratively through discussion, focusing on the needs of the user and purpose of the product</li> <li>• Develop ideas through the analysis of existing products and use annotated sketches and prototypes to model and communicate ideas</li> </ul>	<ul style="list-style-type: none"> <li>• Gather information about needs and wants, and develop criteria to inform the design of products that are fit to purpose, aimed at individuals or groups</li> <li>• Generate, model, and communicate realistic ideas through discussion and where appropriate, annotated sketches, cross-sectional and exploded diagrams.</li> </ul>	<ul style="list-style-type: none"> <li>• Use research to develop a design specification for a functional product. Take account of constraints including time, resources, and cost</li> <li>• Generate and develop innovative ideas and share and clarify these through discussion</li> <li>• Communicate ideas through annotated sketches, pictorial representations, or circuit diagrams.</li> </ul>	<ul style="list-style-type: none"> <li>• Carry out research into user needs and existing products, using surveys, interviews, questionnaires, and web-based resources</li> <li>• Develop a simple design specification to guide the development of their ideas and products, taking account of constraints including time, resources, and cost</li> <li>• Generate, develop, and model innovative ideas, through discussion, prototypes, and annotated sketches</li> </ul>
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## Progression of Skills in Design Technology

<p style="text-align: center;"><b>Make</b> Mechanisms/Structures/ Electrical Systems/ Mechanical Systems</p>	<p><b>Exploration of making</b></p> <ul style="list-style-type: none"> <li>To build and construct using a range of materials such as recycled, man made and found</li> <li>To explore simple joining techniques: tape and glue sticks, Sellotape, PVA, Split pins and hole punches</li> <li>To use a range of tools with increasing accuracy and confidence</li> </ul>	<p><b>Wheels and axles</b> <b>Freestanding structures</b></p> <ul style="list-style-type: none"> <li>Make their design using appropriate techniques</li> <li>With support, measure, mark out, cut, and shape a range of materials</li> <li>Use tools e.g., scissors safely</li> <li>Assemble, join, and combine materials together using glue/masking tape</li> </ul>	<p><b>Sliders and Levers</b></p> <ul style="list-style-type: none"> <li>Begin to select and name tools and materials</li> <li>Measure and cut paper and card with some accuracy</li> <li>Use tools e.g., hole punch, card drill appropriately</li> <li>Assemble, join, and combine materials using tape, paper fasteners</li> </ul>	<p><b>Shell Structures</b></p> <ul style="list-style-type: none"> <li>Select tools and techniques for making the product</li> <li>Measure, mark out, cut, score, and assemble components with more accuracy</li> <li>Work safely and appropriately with a range of simple tools</li> <li>Think about ideas and change things if necessary, to improve the end result</li> </ul>	<p><b>Levers and linkages</b> <b>Simple circuits and switches</b></p> <ul style="list-style-type: none"> <li>Order the main stages of making</li> <li>Confidently select appropriate materials including electrical components</li> <li>Measure, mark out, cut and shape a range of materials using appropriate tools, equipment and techniques</li> </ul>	<p><b>Pulleys or gears</b> <b>More complex switches and circuits</b></p> <ul style="list-style-type: none"> <li>Select appropriate tools and techniques</li> <li>Measure and mark out accurately</li> <li>Use tools and equipment safely e.g., junior hacksaws, glass paper,</li> <li>Cut and join accurately to ensure a good quality finish to the product</li> </ul>	<p><b>Frame Structures</b></p> <ul style="list-style-type: none"> <li>Formulate a clear plan, including a step-by-step list of what needs to be done and resources to be used</li> <li>Competently select from a and use appropriate tools to accurately measure, mark, cut out, shape and join construction materials to make frameworks</li> <li>Use finishing and decorating techniques suitable for the product</li> </ul>
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Progression of Skills in Design Technology

<b>Food</b>	<p><b>Exploring Fruit/Veg and tools for food preparation</b></p> <ul style="list-style-type: none"> <li>To use a knife and fork independently</li> <li>To explore a range of cooking equipment through play experiences (Such as the mud kitchen and role play areas)</li> <li>To experience the preparation and eating of a variety of fresh fruit and vegetables</li> </ul>	<p><b>Preparing fruit/veg</b></p> <ul style="list-style-type: none"> <li>Demonstrate basic food handling and hygiene practices</li> <li>Select and arrange appropriate fruit/veg</li> <li>Use a knife to slice using the bridge technique with support</li> </ul>	<p><b>Preparing fruit/veg</b></p> <ul style="list-style-type: none"> <li>Follow safe procedures for food safety and hygiene</li> <li>Use equipment safely with support e.g., peeler, grater, juicer, knife</li> </ul>	<p><b>Healthy and varied diet</b></p> <ul style="list-style-type: none"> <li>Demonstrate hygienic food preparation and storage</li> <li>Use equipment with support e.g., grater, knife using bridge and claw techniques</li> <li>Use equipment safely e.g., knife to spread</li> </ul>	<p><b>Healthy and varied diet</b></p> <ul style="list-style-type: none"> <li>Confidently demonstrate safe procedures for safety and hygiene</li> <li>Use a heat source with adult support</li> <li>Select, prepare, and combine ingredients</li> </ul>	<p><b>Celebrating culture and seasonality</b></p> <ul style="list-style-type: none"> <li>Apply the rules for basic food safety and hygiene e.g., use of oven</li> <li>Weigh and measure accurately (time, dry ingredients, liquids)</li> </ul>	<p><b>Celebrating culture and seasonality</b></p> <ul style="list-style-type: none"> <li>Write a step-by-step recipe</li> <li>Select and use appropriate utensils and equipment accurately and safely</li> </ul>
<b>Textiles</b>	<ul style="list-style-type: none"> <li>Exploring weaving techniques with natural and man made products</li> </ul>		<p><b>Templates and joining techniques</b></p> <ul style="list-style-type: none"> <li>Cut and join fabric using basic sewing techniques</li> <li>Add decoration using glue</li> </ul>	<p><b>2D shape to 3D product</b></p> <ul style="list-style-type: none"> <li>Measure, tape or pin, cut and join fabric with some accuracy</li> <li>Use embroidery stitches e.g., cross stitch</li> <li>Add embellishments using glue/ stitches</li> </ul>			<p><b>Combining different fabric shapes</b></p> <ul style="list-style-type: none"> <li>Cut and join with accuracy to ensure a good quality finish</li> <li>Pin, sew and stitch materials together with accuracy including fastenings and select stitches to join materials and add effect.</li> <li>Use a variety of stitches</li> </ul>

## Progression of Skills in Design Technology

<p><b>Evaluate</b></p>	<ul style="list-style-type: none"> <li>• Share what they have made with others and talk about what they have made</li> <li>• To discuss the process involved in making – describing simple techniques</li> <li>• To review what they have produced – discussing the processing and evaluating its success</li> </ul>	<ul style="list-style-type: none"> <li>• Discuss how well the product works in relation to the purpose</li> <li>• Evaluate their products as they are developed, identifying strengths and possible changes they might make</li> <li>• Ask questions about what they have made and how they have gone about it</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate against their design criteria</li> <li>• Evaluate their products as they are developed, identifying strengths and possible changes they might make</li> <li>• Talk about their ideas, saying what they like and dislike about them</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate their product against original design criteria e.g., how well it meets the intended purpose</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate both during and at the end of the project</li> <li>• Evaluate their products carrying out appropriate tests</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate against the original design specification</li> <li>• Evaluate the product personally and seek evaluation from others</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate their product, identifying strengths and areas for development, and carry out appropriate tests</li> <li>• Record their evaluations using drawings with labels</li> <li>• Evaluate against their original criteria and suggest ways that their product could be improved</li> </ul>
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