

Progression in Design & Technology at Haddenham Community Junior School. Year 3 and 4 Aims and Outcomes.

	Master practical skills							Design, make, evaluate and improve	Take inspiration from design throughout history
Statement	Develop the skills needed to make high quality products.							Develop the process of design thinking and seeing design as a process.	Appreciate the design process that has influenced the products we use in everyday life.
	Food	Materials	Textiles	Electricals and electronics	Computing	Construction	Mechanics		
Outcome	<p>Children can:</p> <p>Prepare ingredients hygienically using appropriate utensils.</p> <p>Measure ingredients to the nearest gram accurately.</p> <p>Follow a recipe.</p> <p>Assemble or cook ingredients (controlling the temperature of the oven or hob, if cooking).</p>	<p>Children can:</p> <p>Cut materials accurately and safely by selecting appropriate tools.</p> <p>Measure and mark out to the nearest millimetre.</p> <p>Apply appropriate cutting and shaping techniques that include cuts within the</p>	<p>Children can:</p> <p>Understand the need for a seam allowance.</p> <p>Join textiles with appropriate stitching.</p> <p>Select the most appropriate techniques to decorate textiles.</p>	<p>Children can:</p> <p>Create series and parallel circuits</p>	<p>Children can:</p> <p>Control and monitor models using software designed for this purpose.</p>	<p>Children can:</p> <p>Choose suitable techniques to construct products or to repair items.</p> <p>Strengthen materials using suitable techniques.</p>	<p>Children can:</p> <p>Use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product (such as levers, winding mechanisms, pulleys and gears).</p>	<p>Children can:</p> <p>Design with purpose by identifying opportunities to design.</p> <p>Make products by working efficiently (such as by carefully selecting materials).</p> <p>Refine work and techniques as work progresses, continually evaluating the product design.</p>	<p>Children can:</p> <p>Identify some of the great designers in all of the areas of study (including pioneers in horticultural techniques) to generate ideas for designs.</p> <p>Improve upon existing designs, giving reasons for choices.</p> <p>Disassemble products to</p>

		<p>perimeter of the material (such as slots or cut outs).</p> <p>Select appropriate joining techniques.</p>						Use software to design and represent product designs.	understand how they work.
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Progression in Design and Technology at Haddenham Community Junior School. Year 5 and 6 Aims and Outcomes.

	Master practical skills							Design, make, evaluate and improve	Take inspiration from design throughout history
Statement	Develop the skills needed to make high quality products.							Develop the process of design thinking and seeing design as a process.	Appreciate the design process that has influenced the products we use in everyday life.
	Food	Materials	Textiles	Electricals and electronics	Computing	Construction	Mechanics		
Outcome	<p>Children can:</p> <p>Understand the importance of correct storage and handling of ingredients (using knowledge of microorganisms)</p>	<p>Children can:</p> <p>Cut materials with precision and refine the finish with appropriate tools (such as sanding wood after cutting or</p>	<p>Children can:</p> <p>Create objects (such as a cushion) that employ a seam allowance.</p> <p>Join textiles with a</p>	<p>Children can:</p> <p>Create circuits using electronics kits that employ a number of components (such as LEDs, resistors,</p>	<p>Children can:</p> <p>Write code to control and monitor models or products.</p>	<p>Children can:</p> <p>Develop a range of practical skills to create products (such as cutting, drilling and screwing,</p>	<p>Children can:</p> <p>Convert rotary motion to linear using cams.</p> <p>Use innovative combinations of electronics (or computing) and</p>	<p>Children can:</p> <p>Design with the user in mind, motivated by the service a product will offer (rather than simply for profit).</p>	<p>Children can:</p> <p>Combine elements of design from a range of inspirational designers throughout history, giving</p>

	<p>Measure accurately and calculate ratios of ingredients to scale up or down from a recipe. Demonstrate a range of baking and cooking techniques.</p> <p>Create and refine recipes, including ingredients, methods, cooking times and temperatures.</p>	<p>a more precise scissor cut after roughly cutting out a shape).</p> <p>Show an understanding of the qualities of materials to choose appropriate tools to cut and shape (such as the nature of fabric may require sharper scissors than would be used to cut paper).</p>	<p>combination of stitching techniques (such as back stitch for seams and running stitch to attach decoration). Use the qualities of materials to create suitable visual and tactile effects in the decoration of textiles (such as a soft decoration for comfort on a cushion).</p>	<p>transistors and chips).</p>		<p>nailing, gluing, filing and sanding).</p>	<p>mechanics in product designs.</p>	<p>Make products through stages of prototypes, making continual refinements.</p> <p>Ensure products have a high quality finish, using art skills where appropriate.</p> <p>Use prototypes, cross-sectional diagrams and computer aided designs to represent designs.</p>	<p>reasons for choices.</p> <p>Create innovative designs that improve upon existing products.</p> <p>Evaluate the design of products so as to suggest improvements to the user experience.</p>
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