

Design and Technology in Lower Key Stage Two



<p>Pupils will:</p>	<p>To master practical skills To design, make, evaluate and improve To take inspiration from design throughout history</p>
<p>You will see them:</p>	<ul style="list-style-type: none"> • Prepare ingredients hygienically using appropriate utensils. • Measure ingredients to the nearest gram accurately. • Follow a recipe. • Assemble or cook ingredients (controlling the temperature of the oven or hob, if cooking). • Cut materials accurately and safely by selecting appropriate tools. • Measure and mark out to the nearest millimetre. • Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs). • Select appropriate joining techniques. • Understand the need for a seam allowance. • Join textiles with appropriate stitching. • Select the most appropriate techniques to decorate textiles. • Create series and parallel circuits • Control and monitor models using software designed for this purpose. • Choose suitable techniques to construct products or to repair items. • Strengthen materials using suitable techniques. • Use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product (such as levers, winding mechanisms, pulleys and gears). • Design with purpose by identifying opportunities to design. • Make products by working efficiently (such as by carefully selecting materials). • Refine work and techniques as work progresses, continually evaluating the product design. • Use software to design and represent product designs. • Identify some of the great designers in all of the areas of study (including pioneers in horticultural techniques) to generate ideas for designs. • Improve upon existing designs, giving reasons for choices. • Disassemble products to understand how they work.
<p>Year 3 and 4 will learn through:</p>	<p>Design Using 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 Generating, developing, modelling and communicating their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams,</p> <p>Make Selecting from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately Selecting from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities</p> <p>Evaluate Investigating and analysing a range of existing products Evaluating their ideas and products against their own design criteria and consider the views of others to improve their work Understanding how key events and individuals in design and technology have helped shape the world</p> <p>Technical knowledge Applying their understanding of how to strengthen, stiffen and reinforce more complex structures Understanding and using mechanical systems in their products [for example, gears and pulleys] Understanding and using electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]</p>