

## Design Technology- 2 year Rolling Programme

Design Technology	Year 1 and 2	Year 3 and 4	Year 5 and 6
Year B	<p><b>Cooking and nutrition: Cooking Fruit and Vegetables</b> Learn to distinguish between fruit and vegetables and where they grow. Design a fruit and vegetable smoothie/soup and accompanying packaging.</p> <p><b>Mechanisms: Wheels and axles</b> Learn about the key parts of a wheeled vehicle, to develop an understanding of how wheels, axles and axle holders work. Design and make a moving vehicle.</p> <p><b>Structures: constructing a windmill</b> Learning about windmills and making a stable structure.</p>	<p><b>Electrical systems: torches</b> Identify the difference between electrical and electronic products. Evaluate a range of existing torches and their features, then develop a new functional torch design.</p> <p><b>Mechanical systems: making a slingshot car</b> Using a range of materials, design and make a car with a working slingshot mechanism and house the mechanism using a range of nets.</p> <p><b>Structures: constructing Castles</b> Identify and learn about the key features of a castle, before designing and making a recycled-material castle (structure)</p>	<p><b>Textiles- sewing- stuffed toys</b> Design a stuffed toy and make decisions on materials, decorations and attachments (appendages), after learning how to sew a blanket stitch.</p> <p><b>Digital World: Navigating the World</b> Design and program a navigation tool to produce a multifunctional device for trekkers using CAD 3D modelling software. Pitch and explain the product to a guest panel.</p> <p><b>Structures playgrounds</b> Research existing playground equipment and their different forms, before designing and developing a range of apparatus to meet a list of specified design criteria.</p>

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<b>Year A</b>	<p><b>Structures-Baby Bear's chair</b> Explore stability and methods to strengthen structures, to understand Baby Bear's chair weaknesses and develop an improved solution for him to use.</p> <p><b>Textiles: Puppets</b> Explore methods of joining fabric. Design and make a character-based hand puppet using a preferred joining technique, before decorating. Example theme: Storybook character.</p> <p><b>Mechanisms: making a moving monster</b> Explore levers, linkages and pivots through existing products and experimentation, use this research to construct and assemble a moving monster.</p>	<p><b>Cooking and nutrition: eating seasonally</b> Learn about various fruits and vegetables, and when, where and why they are grown in different seasons. Discover the relationship between colour and health benefits.</p> <p><b>Digital world: wearable technology</b> An alternative to the Electronic charm unit, including a greater focus on evaluation, use of the virtual micro:bit and new video content.</p> <p><b>Textiles: Cross-stitch and appliqué</b> Learn and apply two new sewing techniques – cross-stitch and appliqué. Utilise these new skills to design and make a cushion or Egyptian collar</p>	<p><b>Electrical systems: Doodlers</b> Our Doodlers unit explores series circuits further and introduces motors. Explore how the design cycle can be approached at a different starting point, by investigating an existing product, which uses a motor, to encourage pupils to problem-solve and work out how the product has been constructed, ready to develop their own.</p> <p><b>Mechanical systems: pop up books</b> Create a functional four-page pop-up storybook design, using lever, sliders, layers and spacers to create paper-based mechanisms.</p> <p><b>Cooking &amp; nutrition: what could be healthier?</b> Discover the farm to fork process, understand the key welfare issues for rearing cattle. Compare the nutritional value of existing sauces and develop a healthier recipe.</p>