



Pilgrims' Way Primary School

Whole School DT Overview 20/21



A design, make, evaluate cycle is used

Year	Food (Predominantly savoury)	Materials and textiles	Construction and Mechanics	Computing and Electronics
EYFS	<p>Expressive arts and design ELG Exploring and using media and materials: children sing songs, make music and dance, and experiment with ways of changing them. They safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. Being imaginative: children use what they have learnt about media and materials in original ways, thinking about uses and purposes. They represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role-play and stories</p>			
Year 1	<p>Fruit and Vegetables (hygiene and slicing, cutting and grouping products)</p> <p>Understand and apply the principles of a healthy and varied diet.</p>	<p>Cut materials safely using tools provided.</p> <p>Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling).</p> <p>Colour and decorate textiles using lots of techniques (such as dyeing, adding sequins or printing).</p>	<p>Create products using levers, wheels and winding mechanisms.</p> <p>Build structures, exploring how they can be made stronger, stiffer and more stable.</p>	<p>ELECTRICALS AND ELECTRONICS</p> <p>Diagnose faults in battery operated devices (such as low battery, water damage or battery terminal damage).</p>
2	<p>Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.</p> <p>Cut, peel or grate ingredients safely and hygienically.</p> <p>Measure or weigh using measuring cups or electronic scales.</p>	<p>Measure and mark out to the nearest centimetre.</p> <p>Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen).</p> <p>Shape textiles using templates.</p> <p>Join textiles using running stitch.</p>	<p>Use materials to practise drilling, screwing, gluing and nailing materials to make and strengthen products..</p> <p>Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</p>	<p>COMPUTING</p> <p>Model designs using software.</p>



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3	<p>Measure ingredients to the nearest gram accurately.</p> <p>Follow a recipe.</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>Choose suitable techniques to construct products or to repair items.</p> <p>Strengthen materials using suitable techniques.</p>	<p>COMPUTING</p> <p>Control and monitor models using software designed for this purpose.</p>
4	<p>Prepare ingredients hygienically using appropriate utensils.</p> <p>Assemble or cook ingredients (controlling the temperature of the oven/hob if cooking).</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 perimeter of the material (such as slots or cut outs).</p> <p>Select appropriate joining techniques.</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>ELECTRICALS AND ELECTRONICS</p> <p>Create series and parallel circuits.</p>
5	<p>Understand the importance of correct storage and handling of ingredients (using knowledge of micro-organisms).</p>	<p>Create objects (such as a cushion) that employ a seam allowance.</p> <p>Join textiles with a combination of stitching techniques (such as back stitch for seams and running</p>	<p>Develop a range of practical skills to create products (such as cutting, drilling and screwing, nailing, gluing, filing and sanding).</p>	<p>COMPUTING</p> <p>Write code to control and monitor models or products.</p>



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	<p>Create and refine recipes, including ingredients, methods, cooking times and temperatures.</p>	<p>stitch to attach decoration).</p> <p>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>		
6	<p>Measure accurately and calculate ratios of ingredients to scale up or down from a recipe.</p> <p>Demonstrate a range of baking and cooking techniques.</p>	<p>Cut materials with precision and refine the finish with appropriate tools (such as sanding wood after cutting or 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>Convert rotary motion to linear using cams.</p> <p>Use innovative combinations of electronics (or computing) and mechanics in product designs.</p>	<p>ELECTRICALS AND ELECTRONICS</p> <p>Create circuits using electronics kits that employ a number of components (such as LEDs, resistors, transistors and chips).</p>