



Shiremoor Primary School Design and Technology Curriculum



Year group	Autumn	Spring	Summer	Food and nutrition
EYFS	<p><u>Continuous Provision: Developing fine motor skills, managing self and creating with materials</u></p> <p>Children engage in hands-on, sensory play using a wide range of materials - from natural loose parts like wood and stones to shiny objects, paper and cellophane. In the malleable area, they shape playdough and clay, while the mud kitchen offers messy mixing with soil, water and herbs. Cooking activities let them experiment with ingredients and observe changes. In the greenhouse, children grow plants, learning about nature and responsibility. Construction play with blocks, LEGO, crates, tyres and reels promotes teamwork and problem-solving. Creative tasks like model-making, weaving and sewing develop fine motor skills. Role-play is encouraged indoors and out, through home corners, dens and small world setups. At the tinkering table, children explore how things work by dismantling and repurposing objects. Improvisation is sparked through prop-making, loose parts and junk modelling.</p>			
Rec	<p style="text-align: center;">Textiles - Bookmarks</p> <p>Develop and practise threading and weaving techniques using various materials and objects. Apply knowledge and skills to designing and sewing their own bookmarks.</p>	<p style="text-align: center;">Structures - Junk Modelling</p> <p>Explore and learn about various types of permanent and temporary joins. They are encouraged to tinker using a combination of materials and joining techniques in the junk modelling area.</p>	<p style="text-align: center;">Structures - Boats</p> <p>Explore waterproofing, floating and sinking by testing materials. Learn about boat features, then design and build a boat.</p>	<p style="text-align: center;">Preparing snacks</p> <p style="text-align: center;">Soup Sandwiches Rainbow salad</p>
Year 1	<p style="text-align: center;">Building Structures - Windmills</p> <p>Design and construct a windmill for a client to live in. Explore various types of windmill, how they work and their key features.</p>	<p style="text-align: center;">Textiles - Puppets</p> <p>Explore methods of joining fabrics. Design and make a hand puppet using a preferred joining technique, before decorating.</p>	<p style="text-align: center;">Mechanical Systems - Sliders and Levers</p> <p>Explore slider mechanisms and the movement they output. Design, make and evaluate a moving storybook.</p>	<p style="text-align: center;">Preparing Fruit and Vegetables</p> <p style="text-align: center;">Fruit Salad Pitta bread pizzas Banana Breakfast Cookies</p>
Year 2	<p style="text-align: center;">Building Structures - Framed Structure</p> <p>Explore stability and ways to strengthen structures to improve Baby Bear's chair.</p>	<p style="text-align: center;">Mechanical Systems - Wheels and Axles</p> <p>Develop an understanding of how wheels, axles and axle holders work. Design and make a moving vehicle.</p>	<p style="text-align: center;">Textiles - 2d to 3d Products</p> <p>Learn how to sew a running stitch ready to design, make and decorate a pouch.</p>	<p style="text-align: center;">Pasty Products</p> <p style="text-align: center;">Vegetable Tart Mille-Feuille Cheese pasties</p>



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Year 3	<p>Mechanical Systems - Levers and Linkages Explore levers, linkage and pivots through products and experimentation, using research to construct and assemble a moving monster.</p>	<p>Building Structures- Frame Structures Investigate how to create strong and stable structures before designing and creating a stable pavilion, complete with cladding.</p>	<p>Computing – Lego Spike Use Lego to explore the mechanisms which make a machine work.</p>	<p>Biscuits Chocolate Chip Cookies Shortbread Oat and Sultana Cookies</p>
Year 4	<p>Mechanical Systems - Pneumatics Explore pneumatic systems, then apply this understanding to design and make a pneumatic item including thumbnail sketches and exploded diagrams.</p>	<p>Textiles - Fastenings Analyse and evaluate a range of existing fastenings, then devise a list of design criteria to design, generate templates and make a fabric cover.</p>	<p>Electrical Systems - Circuits and Switches Evaluate a range of existing torches and their features, then develop a new functional torch design.</p>	<p>Muffins and Scones Autumn Feast Muffins Cheese Scones Banana Muffins</p>
Year 5	<p>Computing - Microbit Explore programming and create algorithms and programs that are used in the real world. Design, test and debug real-world programs.</p>	<p>Mechanical Systems - Pulleys Create a working vehicle that uses pulleys.</p>	<p>Electrical Systems - More Complex Circuits and Switches Design and develop a steady hand game using a series circuit.</p>	<p>Bread Products Pizza Bread Rolls Soda Bread</p>
Year 6	<p>Computer Aided Design - Tinkercad Explore and create digital designs using Tinkercad.</p>	<p>Electrical Systems - Crumble Create an alarm system using crumble.</p>	<p>Textiles - Stuffed Toy Design and make a stuffed toy, creating a template and using a range of fabric skills such as pinning, cutting, stitching and decoration. Accurately assemble and refine product.</p>	<p>Showcase of skills Come dine with me</p>