



	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn	<p>Autumn 1 - Explore different materials freely.</p> <p>Develop their own ideas and then decide which materials to use to express them.</p> <p>Explore different textures. Make imaginative and complex 'small worlds.'</p>	<p>Autumn 2 – Emergency vehicle.</p> <p>Construct an emergency vehicle.</p> <p>Explain how they created something, talking about the materials and techniques they have used.</p>	<p>Autumn 1 - Cooking & nutrition</p> <p>Designing and making with food</p> <p>Health and nutrition</p> <p>Combining tastes and textures to make a product</p> <p>Using basic cutting tools</p> <p><i>Fruit kebabs</i></p>	<p>Autumn 1 - Textiles: Marking out and joining fabric</p> <p>Making a textile product by marking out, cutting, and joining fabric</p> <p><i>Finger puppet(animals)</i></p>	<p>Autumn 1 - Free Standing Structures</p> <p>Understanding ways structures can be made stable.</p> <p>Understand how to stiffen materials</p> <p><i>Photo frame (as a present)</i></p>	<p>Autumn 1 – Mechanisms: Linkages</p> <p>Understand how a range of linkage type mechanisms work</p> <p>Assembly a range of mechanisms.</p> <p>Apply to the design of a pop-up book</p> <p><i>Pop Up Book with moving parts (Guide To The Rainforest)</i></p>	<p>Autumn 2 – Structures Musical instruments</p> <p>Investigate instruments from different times and cultures</p> <p>Understand how shape and materials used can alter sound</p> <p>Investigate a range of finishing techniques</p> <p><i>Rainmaker</i></p>	<p>Autumn 2 - Structures</p> <p>Understand why structures sometimes fail</p> <p>Investigate and use techniques to reinforce and strengthen structures</p> <p>Design and make a structure for a specific task</p> <p><i>Design and build an aqueduct</i></p>
Spring		<p>Spring 2 –Fruit Salad.</p> <p>Designing and making with food</p> <p>Learning the importance of eating healthy.</p> <p>Using basic cutting tools.</p> <p>Learning basic food hygiene.</p>	<p>Spring 1 - Static Structures</p> <p>Creating models from sheet and reclaimed materials</p> <p>Understand about basic structures and how they can be made stronger/more stable</p> <p>Use range of</p>	<p>Spring 1 - Mechanisms: Wheels, axels, pulleys and levers</p> <p>Joining materials with moving joints</p> <p>Understand how wheels and axels work</p> <p>Understand winding mechanisms</p> <p><i>Moving vehicle (fire engine)</i></p>	<p>Spring 2 - Mechanisms and control:Pneumatics</p> <p>Consider different types of pneumatic structures</p> <p>Know about the movement of simple mechanisms, such as levers and linkages</p> <p><i>Moving Monster</i></p>	<p>Spring 1 - Textiles: Reinforcing fabric</p> <p>Investigate ways of reinforcing fabric, e.g. over stitching, running stitch</p> <p>Create and use a pattern</p> <p>Develop decorative techniques and fastenings e.g. applique</p> <p><i>Purse for the Rio carnival</i></p>	<p>Spring 2 - Mechanisms: Moving toys using cams, wheels and axels</p> <p>Understand how mechanisms can be used to produce movement</p> <p>Cut, shape and join components, selecting tools for a specific purpose</p> <p><i>Roman siege machines</i></p>	<p>Spring 1 - Mechanisms: electrical and computer control</p> <p>Understand how products can be driven by electricity</p> <p>Use motors to control speed and direction of movement</p> <p>Develop structures with cladding and finishing techniques</p>

			fixing techniques <i>Castles</i>					
Summer	<p>Summer – Once upon a time</p> <p>Develop their own ideas and then decide which materials to use to express them.</p> <p>Join different materials and explore different textures.</p> <p>Use objects or tools to print a pattern or image with support.</p>	<p>Summer 2 – Skeletons</p> <p>Look carefully at images or model of a skeleton.</p> <p>Choose from a variety of resources, what resources to use to create their own skeleton.</p> <p>Talk about the parts of the body and how they are connected</p>	<p>Summer 1 - Mechanisms: Pushes, pulls and levers</p> <p>Understand simple mechanisms that create movement e.g. simple levers and sliders</p> <p><i>A book with moving parts (transport)</i></p>	<p>Summer 1 - Textiles: Using a paper pattern, joining fabric</p> <p>Use a graphics programme</p> <p>Use a simple paper pattern to draw around and cut out fabric</p> <p>Use simple joining techniques</p> <p><i>Space suit</i></p>	<p>Summer 2 - Cooking & nutrition</p> <p>Food preparation techniques</p> <p>Combining appearance, flavour and texture</p> <p>Understand the balanced plate model for healthy eating</p> <p><i>A Greek Salad</i></p>	<p>Summer 1 - Electrical Control</p> <p>Draw on understanding of simple electrical circuits and switches</p> <p>Join components, cut and shape material with precision</p> <p><i>An alarm system</i></p>	<p>Summer 2 - Cooking and Nutrition</p> <p>Understand the function and properties of materials</p> <p>Identify, select and use food tools and techniques safely</p> <p>Understand food hygiene</p> <p><i>Making bread</i></p>	<p>Summer 2 - Textiles</p> <p>Design for a range of needs – appearance, safety, size, warmth</p> <p>Use patterns, templates, and detailed working drawings</p> <p>Develop finishing techniques</p> <p><i>T-Shirts</i></p>

2021-22 LTP Design and Technology

