

# Design and Technology

## Long Term Curriculum Overview

Year 1/2 (Year A)					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<u>MECHANICAL SYSTEMS</u>  <u>Wheels and Axles</u>  (Make an F1 Racing Car)  <i>Explore and use wheels, axles and axle holders. Distinguish between fixed and freely moving axles.</i>		<u>COOKING AND NUTRITION:</u>  <u>Fruit Salad/Fruit Kebabs</u>  (cutting)  <ul style="list-style-type: none"> <li>• Evaluate 1</li> <li>• Design</li> <li>• Make</li> <li>• Evaluate 2</li> </ul>		<u>TEXTILES – GIFT</u>  (Running stitch)  <i>Know how simple 3-D textile products are made, using a template to create two identical shapes. Know how to join fabrics using different techniques e.g. running stitch, glue, over stitch, stapling. Explore different finishing techniques e.g. using painting, fabric crayons, stitching, sequins, buttons and ribbons.</i>	
Year 1/2 (Year B)					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<u>MECHANICAL SYSTEMS</u>  <u>Levers and Slides</u>  (Moving Christmas Card)  <i>Explore and use sliders and levers. Know that different mechanisms produce different types of movement.</i>		<u>COOKING AND NUTRITION – Salad/Vegetable/ Sandwich</u>  (cutting and spreading)  <ul style="list-style-type: none"> <li>• Evaluate 1</li> <li>• Design</li> <li>• Make</li> <li>• Evaluate 2</li> </ul>		<u>STRUCTURES</u>  (Bridges – strong, stiff, stable, Wales)  <i>Know how to make freestanding structures stronger, stiffer and more stable.</i>	

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Year 3/4 (Year A)					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<p><u>TEXTILES</u></p> <p>(Making a bag for a hunter/gatherer)</p> <p><i>Know how to strengthen, stiffen and reinforce existing fabrics.</i></p> <p><i>Know how to securely join two pieces of fabric together.</i></p> <p><i>Know the need for patterns and seam allowances</i></p>		<p><u>COOKING AND NUTRITION</u></p> <p>(Baking)</p> <ul style="list-style-type: none"> <li>• Evaluate 1</li> <li>• Design</li> <li>• Make</li> <li>• Evaluate 2</li> </ul>		<p><u>STRUCTURES</u></p> <p>(Wooden photo frame)</p> <p><i>Develop and use knowledge of how to construct strong, stiff shell structures.</i></p> <p><i>Develop and use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes.</i></p>	
Year 3/4 (Year B)					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<p><u>TEXTILES</u></p> <p>(Y5/6 knowledge)</p> <p><i>Know how a 3-D textile product can be made from a combination of accurately made pattern pieces, fabric shapes and different fabrics.</i></p> <p><i>Fabrics can be strengthened, stiffened and reinforced where appropriate.</i></p>		<p><u>MECHANICAL SYSTEMS</u></p> <p>(Pulleys and levers)</p> <p><i>Know and use lever and linkage mechanisms.</i></p> <p><i>Distinguish between fixed and loose pivots.</i></p>		<p><u>COOKING AND NUTRITION</u></p> <p>(Using the hob)</p> <ul style="list-style-type: none"> <li>• Evaluate 1</li> <li>• Design</li> <li>• Make</li> <li>• Evaluate 2</li> </ul>	

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## Long Term Curriculum Overview

Year 5/6 (Year A)					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<u>ELECTRICAL SYSTEMS</u>  (Make a Buzz Game) <i>(Y3/4 Knowledge)</i> <i>Know and use electrical systems in their products, such as series circuits incorporating switches, bulbs and buzzers.</i>		<u>ELECTRICAL SYSTEMS</u>  <u>Computing Control</u>  (Lego Coding)  <i>Know and use electrical systems in their products.            Know the use of computer control systems in products.            Apply their knowledge of computing to program, monitor and control their products.</i>		<u>COOKING AND NUTRITION</u>  (Bread – micro-organisms with yeast)  <ul style="list-style-type: none"> <li>• Evaluate 1</li> <li>• Design</li> <li>• Make</li> <li>• Evaluate 2</li> </ul>	
Year 5/6 Year B					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<u>STRUCTURES</u>  (Building a WWII shelter)  <i>Know how to strengthen, stiffen and reinforce 3-D frameworks.</i>		<u>MECHANICAL SYSTEMS</u>  (Cams)  <i>Know that mechanical systems have an input, process and an output.            Know how cams can be used to produce different types of movement and change the direction of movement.            Know how gears and pulleys can be used to speed up, slow down or change the direction of movement.</i>		<u>COOKING AND NUTRITION</u>  (Using a grill/BBQ)  <ul style="list-style-type: none"> <li>• Evaluate 1</li> <li>• Design</li> <li>• Make</li> <li>• Evaluate 2</li> </ul>	