

# 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.</i> <i>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.</i> <i>Know how to join fabrics using different techniques e.g. running stitch, glue, over stitch, stapling.</i> <i>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.</i> <i>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	
<u>TEXTILES</u>  (Making a bag for a hunter/gatherer) <i>Know how to strengthen, stiffen and reinforce existing fabrics.</i> <i>Know how to securely join two pieces of fabric together.</i> <i>Know the need for patterns and seam allowances</i>				<u>COOKING AND NUTRITION</u>  (Baking) <ul style="list-style-type: none"><li>• Evaluate 1</li><li>• Design</li><li>• Make</li><li>• Evaluate 2</li></ul>				<u>STRUCTURES</u>  (Wooden photo frame) <i>Develop and use knowledge of how to construct strong, stiff shell structures.</i> <i>Develop and use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes.</i>			
Year 3/4 (Year B)											
Autumn 1		Autumn 2		Spring 1		Spring 2		Summer 1		Summer 2	
<u>TEXTILES</u>  (Y5/6 knowledge) <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> <i>Fabrics can be strengthened, stiffened and reinforced where appropriate.</i>				<u>MECHANICAL SYSTEMS</u>  (Pulleys and levers)  <i>Know and use lever and linkage mechanisms.</i> <i>Distinguish between fixed and loose pivots.</i>				<u>COOKING AND NUTRITION</u>  (Using the hob) <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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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.</i> <i>Know the use of computer control systems in products.</i> <i>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.</i> <i>Know how cams can be used to produce different types of movement and change the direction of movement.</i> <i>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>			