

# Mersey Park Primary School Design and Technology Long Term Overview – Year 3



	Target Tracker Assessment Focus	Weaving Knowledge, Skills and Understanding
<b>Cooking and Nutrition: Sandwich/wrap</b>		
	<ul style="list-style-type: none"> <li>• Talk about the different food groups and name food from each group</li> <li>• Understand that food has to be grown, farmed or caught in Europe and the wider world</li> <li>• Use a wider variety of ingredients and techniques to prepare and combine ingredients safely</li> </ul>	<p>During KS2 pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• understand and apply the principles of a healthy and varied diet</li> <li>• prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</li> <li>• understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</li> </ul> <p>Breadth of study:</p> <ul style="list-style-type: none"> <li>• Can they choose the right ingredients for a product?</li> <li>• Can they use equipment safely?</li> <li>• Can they make sure that their product looks attractive?</li> <li>• Can they describe how their combined ingredients come together?</li> <li>• Can they set out to grow plants such as cress and herbs from seed with the intention of using them for their food product?</li> </ul>
<b>Processes: Stick puppet, Egyptian mummy</b>		
<p>Developing planning and communicating ideas</p>	<ul style="list-style-type: none"> <li>• Use knowledge of existing products to design his/her own functional products</li> <li>• Create designs using annotated sketches, cross-sectional diagrams and simple computer programmes</li> </ul>	<p>During KS2 pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups</li> <li>• generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</li> </ul> <p>Breadth of study:</p> <ul style="list-style-type: none"> <li>• Can they show that their design meets a range of requirements?</li> <li>• Can they put together a step-by-step plan which shows the order and also what equipment and tools they need?</li> <li>• Can they describe their design using an accurately labelled sketch and words?</li> <li>• How realistic is their plan?</li> </ul>
<p>Working with tools, equipment, materials and components to make quality products</p>	<ul style="list-style-type: none"> <li>• Safely measure, mark out, cut assemble and join with some accuracy</li> <li>• Make suitable choices from a wider range of tools and unfamiliar materials and plan out the main stages of using them</li> </ul>	<p>During KS2 pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• select from and use a wider range of tools and equipment to perform practical tasks, such as cutting, shaping, joining and finishing, accurately</li> <li>• select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities</li> </ul>

<p>Textiles</p> <p>Stiff and flexible sheet materials</p> <p>Mouldable materials</p>		<p>Breadth of study:</p> <ul style="list-style-type: none"> <li>• Do they select the most appropriate tools and techniques to use for a given task?</li> <li>• Can they use equipment and tools accurately?</li> <li>• Can they join textiles of different types in different ways?</li> <li>• Can they choose textiles both for their appearance and also qualities?</li> <li>• Do they select and use the most appropriate materials?</li> <li>• Can they work accurately to make cuts and holes?</li> <li>• Can they use a range of techniques to shape and mould?</li> </ul>
<p>Evaluating processes and products</p>	<ul style="list-style-type: none"> <li>• Investigate and analyse existing products and those he/she has made, considering a wide range of factors</li> </ul>	<p>During KS2 pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• investigate and analyse a range of existing products</li> <li>• evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</li> <li>• understand how key events and individuals in design and technology have helped shape the world</li> </ul> <p>Breadth of study:</p> <ul style="list-style-type: none"> <li>• Can they explain what they changed which made their design even better?</li> </ul>
<p>Electrical and mechanical components</p>	<ul style="list-style-type: none"> <li>• Understand how pneumatic systems create movement</li> </ul>	<p>During KS2 pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• understand and use mechanical systems in their products, (for example as gears, pulleys, cams, levers and linkages)</li> <li>• understand and use electrical systems in their products, (for example series circuits incorporating switches, bulbs, buzzers and motors)</li> <li>• apply their understanding of computing to programme, monitor and control their products.</li> </ul> <p>Breadth of study:</p> <ul style="list-style-type: none"> <li>• Can they make a product which uses pneumatic components?</li> </ul>
<p>Construction</p>	<ul style="list-style-type: none"> <li>• Strengthen frames using diagonal struts</li> </ul>	<p>During KS2 pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• apply their understanding of how to strengthen, stiffen and reinforce more complex structures</li> </ul> <p>Breadth of study:</p> <ul style="list-style-type: none"> <li>• Can they join materials?</li> <li>• Do they use finishing techniques?</li> </ul>