

Subject: Technology	Year group: Year 3	Topic: Levers	Initiation & activation activities:
<p>Prior knowledge required: Children can: design purposeful, functional, appealing products for themselves and other users based on design criteria; generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p> <p>Make :select from and use a range of tools and equipment to perform practical tasks, (or example, cutting, shaping, joining and finishing); select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p> <p>Evaluate: explore and evaluate a range of existing products; evaluate their ideas and products against design criteria</p> <p>Technical knowledge: build structures, exploring how they can be made stronger, stiffer and more stable; explore and use mechanisms, (for example levers, sliders, wheels and axles), in their products.</p> <p>Food technology: use the basic principles of a healthy and varied diet to prepare dishes; understand where food comes from.</p>		Vocabulary:	
Programme of Study*	Implementation:	Impact –lesson sequence:	Evaluations and assessments:
<p>Design</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>Make</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>Evaluate</p>	<p><b>Electrical and <u>mechanical</u> components</b></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 make a product which uses both electrical and <u>mechanical</u> components?</li> <li>Can they use a simple circuit?</li> <li>Can they use a number of components?</li> </ul> <p><b>Developing, planning and communicating ideas</b></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><b>Working with tools, equipment, materials and components to make quality products</b></p> <ul style="list-style-type: none"> <li>Can they use equipment and tools accurately?</li> </ul> <p><b>Evaluating processes and products</b></p> <ul style="list-style-type: none"> <li>Can they explain what they changed which made their design even better?</li> </ul>		

<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>Technical knowledge</p> <ul style="list-style-type: none"> <li>apply their understanding of how to strengthen, stiffen and reinforce more complex structures</li> <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>Cooking and Nutrition</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>			
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- 50% of this programme of study is taught in Years 5 and 6