

Subject: Technology	Year group: Year 4	Topic: Electrical components – light up	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"> 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 generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design <p>Make</p> <ul style="list-style-type: none"> select from and use a wider range of tools and equipment to perform practical tasks, such as cutting, shaping, joining and finishing, accurately 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 	<p>Electrical and mechanical components</p> <ul style="list-style-type: none"> Can they add things to their circuits? How have they altered their product after checking it? Are they confident about trying out new and different ideas? <p>Developing, planning and communicating ideas</p> <ul style="list-style-type: none"> Can they come up with at least one idea about how to create their product? Do they take account of the ideas of others when designing? Can they produce a plan and explain it to others? Can they suggest some improvements and say what was good and not so good about their original design? <p>Working with tools, equipment, materials and components to make quality products</p> <ul style="list-style-type: none"> Can they tell if their finished product is going to be good quality? Are they conscience of the need to produce something that will be liked by others? Can they show a good level of expertise when using a range of tools and equipment? Do they work at their product even though their original idea might not have worked? <p>Evaluating processes and products</p> <ul style="list-style-type: none"> Have they thought of how they will check if their design is successful? Can they begin to explain how they can improve their original design? 		

<p>Evaluate</p> <ul style="list-style-type: none"> investigate and analyse a range of existing products evaluate their ideas and products against their own design criteria and consider the views of others to improve their work understand how key events and individuals in design and technology have helped shape the world <p>Technical knowledge</p> <ul style="list-style-type: none"> apply their understanding of how to strengthen, stiffen and reinforce more complex structures understand and use mechanical systems in their products, (for example as gears, pulleys, cams, levers and linkages) understand and use electrical systems in their products, (for example series circuits incorporating switches, bulbs, buzzers and motors) apply their understanding of computing to programme, monitor and control their products. <p>Cooking and Nutrition</p> <ul style="list-style-type: none"> understand and apply the principles of a healthy and varied diet prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. 	<ul style="list-style-type: none"> Can they evaluate their product, thinking of both appearance and the way it works? Do they take time to consider how they could have made their idea better? 		
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- 50% of this programme of study is taught in Years 5 and 6