<table>
<tr><td>Subject: Technology</td><td>Year group: Year 3</td><td>Topic: pneumatics</td><td rowspan="2">Initiation & activation activities:</td></tr>
<tr><td colspan="2">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
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
Evaluate: explore and evaluate a range of existing products; evaluate their ideas and products against design criteria
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.
Food technology: use the basic principles of a healthy and varied diet to prepare dishes; understand where food comes from.</td><td>Vocabulary:</td></tr>
<tr><td>Programme of Study*</td><td>Implementation:</td><td>Impact –lesson sequence:</td><td>Evaluations and assessments:</td></tr>
<tr><td>Design
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
Make
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
Evaluate</td><td>Electrical and <u>mechanical</u> components
Do they select the most appropriate tools and techniques to use for a given task?
Can they make a product which uses both electrical and <u>mechanical</u> components?
Can they use a simple circuit?
Can they use a number of components?
Developing, planning and communicating ideas
Can they show that their design meets a range of requirements?
Can they put together a step-by-step plan which shows the order and also what equipment and tools they need?
Can they describe their design using an accurately labelled sketch and words?
How realistic is their plan?
Working with tools, equipment, materials and components to make quality products
Can they use equipment and tools accurately?
Evaluating processes and products
Can they explain what they changed which made their design even better?</td><td></td><td></td></tr>
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• 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 Technical knowledge • 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. Cooking and Nutrition • 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.			

- 50% of this programme of study is taught in Years 5 and 6