

Design Technology - Medium term plan			
Year group : Year 3	Topic : Moving Monsters		Focus : pneumatics
<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 [for example, 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>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 (pneumatics) 			
<p>Prior learning experiences From y2</p> <ul style="list-style-type: none"> Design – create a design using design criteria (fire engine) Make – make a fire engine with wheels that move Make – find ways of making wheels and an axle Evaluate – Explain what they like and dislike, show how to improve fire engine Evaluate – identify key features of a fire engine Technical knowledge – make an axel and wheels so that the fire engine moves 		<p>Endpoints</p> <ul style="list-style-type: none"> Design – create a design using design criteria Make – make a that moves its mouth using pneumatics Make – find ways of making wheels and an axle Evaluate – Explain what they like and dislike, show how to improve their monster Evaluate – identify key features of a moving model Technical knowledge – create a mechanism using syringes and piping (pneumatics) 	
<p>Sticky vocabulary Design, design criteria, evaluate, pneumatics</p>			
Design	Make	Evaluate	Technical knowledge

<p>Can, with growing confidence generate ideas, considering its purpose and users. Can begin to understand how well products have been designed, made, what materials have been used and the construction technique.</p> <p>Can model ideas by making templates and mock ups of design</p> <p>Can make drawings with labels when designing.</p>	<p>Can begin to select a wider range of tools such as scissors, knives Can select the most appropriate tools and techniques to use. Can measure mark out, cut, score and assemble components with more accuracy. Can start to measure, tape or pin, cut and join fabric, including felt with some accuracy.</p>	<p>Can start to evaluate their product against original design criteria e.g. how well it meets its intended purpose. Begin to evaluate familiar products and consider the views of others to improve them</p>	<p>Can make a product move using simple mechanisms such as sliders, pneumatics. (Moving monsters) Begin to use finishing techniques to strengthen and improve the appearance of their product using a range of equipment.</p> <p>Safety of using equipment.</p> <p>Create a piece of work using pneumatics</p>
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