

Year 3 Scheme of Work – Design Technology

Unit	Time (Wks)	Activities	Outcomes	Differentiation	Assessment	NC Links	Other Subject Link
<p>Previous learning: Y1 – Evaluate how well a product works; draw a simple design and add annotations; make a picture with moving mechanisms; use design criteria to help guide the making and evaluation process.</p>				<p>Next learning: Y6 - Use research to develop design criteria; design of their automaton; measure, mark out and cut materials accurately and safely to the nearest cm using a wider range of tools and equipment; make a mechanical device, selecting materials to make a framework, handle, cam mechanism and finishing the device; use peer feedback and design criteria to help guide the evaluation process.</p>			
3.4 Story Books	6-8	<ul style="list-style-type: none"> - Investigate and evaluate products with lever and linkage systems. - Experiment with a range of techniques to create moving mechanisms. - Plan and design a storybook. - Make a storybook with moving mechanisms using a design. - Evaluate a finished product. 	<ul style="list-style-type: none"> - Recognise products that contain lever and linkage systems. - Explain why a particular mechanism has been used for a particular purpose. - Use technical vocabulary to describe lever and linkage systems. - Cut and shape materials with some precision to make their mechanisms work. - Join and combine materials and components in a variety of ways. - Mark out and measure accurately. - Create a design for a particular purpose. - Follow a design to create a storybook. - Evaluate their own and other people’s finished products fairly and constructively. - Explain what they would do differently if they were to make their product again. 	<ul style="list-style-type: none"> - Modelling - Practical activities - Step-by-step guide 	<p>Continuous throughout.</p> <p>Final product</p>	<p>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.</p> <p>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.</p> <p>Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] accurately.</p> <p>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.</p> <p>Investigate and analyse a range of existing products.</p> <p>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p> <p>Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].</p>	<p>Science – mechanisms</p> <p>Literacy – story books</p>

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<p>Previous learning: Y2 – Explore an existing product and describe its problems and positives; draw a design and describe it; build strong structures; test their own product and evaluate it; use evaluations to suggest improvements.</p>				<p>Next learning: Y5 – Investigate different beam/pillar designs; stiffen and strengthen structures; evaluate models against design criteria; build and test models to find a strong bridge design; build a model suspension bridge; evaluate the designs of others and consider their views; write a design criteria according to a given brief; design and create a prototype model according to design criteria; devise tests to analyse and evaluate a product according to design criteria.</p>			
<p>3.5 Let's Go Fly a Kite</p>	<p>6-8</p>	<ul style="list-style-type: none"> - Discuss how key events and individuals in design and technology have helped shape the world. Name and explain the function of the different parts of a kite. - Investigate kite shapes. Select from and use different materials and components. - Develop design criteria. Develop and communicate a design for my kite. - Accurately measure and cut the shape of the body of the kite and join it to the frame structure. Make a strong and stiff frame structure to support the kite. - Evaluate my kite. 	<ul style="list-style-type: none"> - Explain how a small event led to a larger significant event in Design and Technology which helped shape the world. - Use research to create ideas and refine them to develop design criteria. - Build and join strong frame structures and stiffen materials. - Apply their understanding of where and how kites need stiffening. - Evaluate product. 	<ul style="list-style-type: none"> - Modelling - Practical activities - Step-by-step guide 	<p>Continuous throughout.</p> <p>Final product</p>	<p>Explore and evaluate a range of existing products.</p> <p>Select from and use a range of textiles according to their characteristics.</p> <p>Select from and use a range of tools and equipment to perform practical tasks for example cutting, shaping, joining and finishing.</p> <p>Design purposeful, functional, appealing products for themselves and other users based on design criteria.</p> <p>Generate, develop, model and communicate their ideas through talking, drawing and templates.</p>	<p>Science – materials, air resistance</p>