

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn	<p><b><u>Moving Cards- Levers/ Pullys/ Wheels (Mechanics)</u></b></p> <ul style="list-style-type: none"> <li>design purposeful, functional, appealing products for themselves and other users based on design criteria</li> </ul> <p>generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</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>select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p> <p>explore and evaluate a range of existing products evaluate their ideas and products against design criteria</p> <p>explore and use mechanisms [for example, levers, sliders, <b>wheels and axles</b>], in their products.</p>	<p><b><u>Vehicles (Mechanisms)</u></b></p> <ul style="list-style-type: none"> <li>generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</li> </ul> <p>select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</p> <p>select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p> <p>explore and evaluate a range of existing products evaluate their ideas and products against design criteria</p>	<p><b><u>Seasonal Stockings (Textiles)</u></b></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 <b>(Consumers)</b></li> </ul> <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> <ul style="list-style-type: none"> <li>select from and use a wider range of materials and components, including construction materials, <b>textiles</b> and ingredients, according to their functional properties and aesthetic qualities</li> </ul> <p>investigate and analyse a range of existing products</p> <ul style="list-style-type: none"> <li>evaluate their ideas and products against their own design criteria and consider the views of others to improve their work <b>(Consumers)</b></li> </ul> <ul style="list-style-type: none"> <li>apply their understanding of how to strengthen, stiffen and</li> </ul>	<p><b><u>Light up a house (STEM/ Electrical Systems)</u></b></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 <b>(Consumers)</b></li> </ul> <ul style="list-style-type: none"> <li>select from and use a wider range of materials and components, including <b>construction materials</b>, textiles and ingredients, according to their functional properties and aesthetic qualities</li> </ul>	<p><b><u>Biscuits</u></b></p> <ul style="list-style-type: none"> <li>generate, develop, model and communicate their ideas through discussion, <b>annotated sketches</b>, <b>cross-sectional and exploded diagrams</b>, <b>prototypes</b></li> </ul> <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 wider range of materials and components, including construction materials, textiles and <b>ingredients</b>, according to their functional properties and aesthetic qualities</p> <p>investigate and analyse a range of existing products</p> <ul style="list-style-type: none"> <li>evaluate their ideas and products against their own design criteria and consider the views of others to improve their work <b>(Consumers)</b></li> </ul> <ul style="list-style-type: none"> <li>apply their understanding of how to strengthen, stiffen and reinforce more complex structures</li> </ul>	<p><b><u>Ginger Bread Houses</u></b></p> <ul style="list-style-type: none"> <li>generate, develop, model and communicate their ideas through discussion, <b>annotated sketches</b>, <b>cross-sectional and exploded diagrams</b>, <b>prototypes</b></li> </ul> <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 wider range of materials and components, including construction materials, textiles and <b>ingredients</b>, according to their functional properties and aesthetic qualities</p> <p>investigate and analyse a range of existing products</p> <ul style="list-style-type: none"> <li>evaluate their ideas and products against their own design criteria and consider the views of others to improve their work <b>(Consumers)</b></li> </ul> <ul style="list-style-type: none"> <li>apply their understanding of how to strengthen, stiffen and</li> </ul>

			reinforce more complex structures.			reinforce more complex structures
Spring	<p><b>Fruit Kebabs (Food/ Ingredients)</b></p> <p>design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p> <p>explore and evaluate a range of existing products</p> <p>evaluate their ideas and products against design criteria</p>	<p><b>Dips and Dippers- STEM</b></p> <p>Food</p> <p>design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p> <p>explore and evaluate a range of existing products</p> <p>evaluate their ideas and products against design criteria</p>	<p><b>British Inventors</b></p> <p>Key events changed the world</p> <ul style="list-style-type: none"> <li>understand how key events and individuals in design and technology have helped shape the world.</li> </ul> <p>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> <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 <b>(Consumers)</b></p>	<p><b>Pencil Cases</b></p> <p>Textiles/ Product Design</p> <p>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> <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 <b>(Consumers)</b></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> <ul style="list-style-type: none"> <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>investigate and analyse a range of existing products</p> <ul style="list-style-type: none"> <li>evaluate their ideas and products against</li> </ul>	<p><b>Inventors</b></p> <p>How key events changed the world</p> <ul style="list-style-type: none"> <li>understand how key events and individuals in design and technology have helped shape the world</li> <li>understand how key events and individuals in design and technology have helped shape the world.</li> </ul> <p>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> <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 <b>(Consumers)</b></p>	<p><b>Fairground Rides</b></p> <p>Electronics and Mechanics</p> <ul style="list-style-type: none"> <li>understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</li> </ul> <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 <b>(Consumers)</b></p> <ul style="list-style-type: none"> <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>

				their own design criteria and consider the views of others to improve their work (Consumers)		
Summer	<p><b>Puppets-</b></p> <p>(Structures/ Textiles) 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, templates, mock-ups and, where appropriate, information and communication technology</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>select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p> <p>explore and evaluate a range of existing products evaluate their ideas and products against design criteria</p>	<p><b>Kites</b></p> <p>(Structures) build structures, exploring how they can be made stronger, stiffer and more stable</p> <p>explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</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, templates, mock-ups and, where appropriate, information and communication technology</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><b>Herb Butter</b></p> <p>design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p> <p>explore and evaluate a range of existing products</p> <p>evaluate their ideas and products against design criteria</p>	<p><b>Chocolate (Food/Product Design)</b></p> <p>design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p> <p>explore and evaluate a range of existing products</p> <p>evaluate their ideas and products against design criteria</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-sketch desk</p>	<p><b>Moving Toys</b></p> <p>understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</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-sketch desk</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>investigate and analyse a range of existing products</p> <ul style="list-style-type: none"> <li>• evaluate their ideas and products against their own design criteria and consider the views of others to improve their work (Consumers)</li> </ul>	<p><b>Shelters</b></p> <p>Textiles/ Materials</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 (Consumers)</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> <ul style="list-style-type: none"> <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>investigate and analyse a range of existing products</p> <ul style="list-style-type: none"> <li>• evaluate their ideas and products against their own design criteria and consider the views of others to improve their work (Consumers)</li> </ul>

						apply their understanding of computing to program, monitor and control their products
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<p>Key Stage 1</p> <p><b>Design</b></p> <ul style="list-style-type: none"> <li>• generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</li> </ul> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>• select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</li> <li>• select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</li> </ul> <p><b>Evaluate</b></p> <ul style="list-style-type: none"> <li>• explore and evaluate a range of existing products</li> <li>• evaluate their ideas and products against design criteria</li> </ul> <p><b>Technical knowledge</b></p> <ul style="list-style-type: none"> <li>• build structures, exploring how they can be made stronger, stiffer and more stable</li> <li>• explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</li> </ul>	<p><b>Key stage 2</b></p> <p>Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home, school, leisure, culture, enterprise, industry and the wider environment].</p> <p>When designing and making, pupils should be taught to:</p> <p><b>Design</b></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><b>Make</b></p> <ul style="list-style-type: none"> <li>• select from and use a wider range of tools and equipment to perform practical tasks [for example, 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><b>Evaluate</b></p> <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><b>Technical knowledge</b></p> <ul style="list-style-type: none"> <li>• apply their understanding of how to strengthen, stiffen and reinforce more complex structures</li> </ul>
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|  | <ul style="list-style-type: none"><li>• understand and use mechanical systems in their products [for example, 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 program, monitor and control their products.</li></ul> |
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