



## Kings Meadow Primary School

### Design Technology Progression of Skills

| Design Technology                                                          | Year 1 | Year 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Year 3 | Year 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Year 5 | Year 6 |
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| <p>Textiles</p> <p>Design</p> <p>Make</p> <p>Evaluate</p> <p>Knowledge</p> |        | <p>Designing a pouch.</p> <ul style="list-style-type: none"> <li>• Selecting and cutting fabrics for sewing.</li> <li>• Decorating a pouch using fabric glue or running stitch.</li> <li>• Threading a needle.</li> <li>• Sewing running stitch, with evenly spaced, neat, even stitches to join fabric.</li> <li>• Neatly pinning and cutting fabric using a template.</li> <li>• Troubleshooting scenarios posed by teacher.</li> <li>• Evaluating the quality of the stitching on others' work.</li> <li>• Discussing as a class, the success of their stitching</li> </ul> |        | <p>Fastenings</p> <ul style="list-style-type: none"> <li>• Writing design criteria for a product, articulating decisions made.</li> <li>• Designing a personalised book sleeve.</li> <li>• Making and testing a paper template with accuracy and in keeping with the design criteria.</li> <li>• Measuring, marking and cutting fabric using a paper template.</li> <li>• Selecting a stitch style to join fabric.</li> <li>• Working neatly by sewing small, straight stitches.</li> <li>• Incorporating a fastening to a design.</li> <li>• Testing and evaluating an end product against the original design criteria.</li> <li>• Deciding how many of the criteria should be met for</li> </ul> |        |        |



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| Design Technology                                  | Year 1                                                                                                     | Year 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Year 3                                                                                                                     | Year 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Year 5                                                                                                             | Year 6 |
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|                                                    |                                                                                                            | <p>against the success criteria.</p> <ul style="list-style-type: none"> <li>Identifying aspects of their peers' work that they particularly like and why.</li> <li>To know that sewing is a method of joining fabric.</li> <li>To know that different stitches can be used when sewing.</li> <li>To understand the importance of tying a knot after sewing the final stitch.</li> <li>To know that a thimble can be used to protect my fingers when sewing</li> </ul> |                                                                                                                            | <p>the product to be considered successful.</p> <ul style="list-style-type: none"> <li>Suggesting modifications for improvement.</li> <li>Articulating the advantages and disadvantages of different fastening types</li> <li>To know that a fastening is something which holds two pieces of material together for example a zipper, toggle, button, press stud and velcro.</li> <li>To know that different fastening types are useful for different purposes.</li> <li>To know that creating a mock up (prototype) of their design is useful for checking ideas and proportions.</li> </ul> |                                                                                                                    |        |
| Mechanisms/<br>Mechanical<br>Systems<br><br>Design | <p>Making a moving storybook</p> <ul style="list-style-type: none"> <li>Explaining how to adapt</li> </ul> | <p>Fairground Wheel</p> <ul style="list-style-type: none"> <li>Conducting simple surveys or discussions to gather</li> </ul>                                                                                                                                                                                                                                                                                                                                          | <p>Pneumatic Toys</p> <ul style="list-style-type: none"> <li>Creating simple design criteria that outline basic</li> </ul> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <p>Making a pop-up book</p> <ul style="list-style-type: none"> <li>Designing a pop-up book which uses a</li> </ul> |        |



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| Design Technology                            | Year 1                                                                                                                                                                                                                                                                                                                                                                                        | Year 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Year 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Year 4 | Year 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Year 6 |
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| <p>Make</p> <p>Evaluate</p> <p>Knowledge</p> | <p>mechanisms, using bridges or guides to control the movement. • Designing a moving story book for a given audience</p> <p>• Following a design to create moving models that use levers and sliders.</p> <p>• Testing a finished product, seeing whether it moves as planned and if not, explaining why and how it can be fixed. • Reviewing the success of a product by testing it with</p> | <p>opinions on what others need or like in a design.</p> <p>• Knowing that a survey is used to find out what people like.</p> <p>• Using a simple design brief that outlines the intended use, target user, and key features of the product, to create simple design criteria. • Knowing that a design brief helps to decide what to make. • Knowing that design criteria are the steps for making a product successful.</p> <p>• Creating ideas with design criteria in mind. • Referring to specific parts of existing products when generating ideas.</p> | <p>functionality and appeal to individual users or target audiences.</p> <p>• Taking part in structured idea blasting sessions.</p> <p>• Coming up with more ideas and considering the feasibility of their ideas in the classroom.</p> <p>• Developing drawing and sketching skills with a focus on clarity and simplicity.</p> <p>• Developing designs by adding detail and justifications about materials, tools, methods.</p> <p>• Beginning to recognise the benefit of a range of diagram types or prototypes to</p> |        | <p>mixture of structures and mechanisms.</p> <p>• Naming each mechanism, input and output accurately.</p> <p>• Storyboarding ideas for a book.</p> <p>• Following a design brief to make a pop up book, neatly and with focus on accuracy.</p> <p>• Making mechanisms and/or structures using sliders, pivots and folds to produce movement.</p> <p>• Using layers and spacers to hide the workings of mechanical parts for an aesthetically pleasing result.</p> <p>• Evaluating the work of others and receiving feedback on own work.</p> |        |



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| Design Technology | Year 1                                                                                                                                                                                                                                                                                                                                                                                                                                          | Year 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Year 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Year 4 | Year 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Year 6 |
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|                   | <p>its intended audience.</p> <ul style="list-style-type: none"> <li>• To know that a mechanism is the parts of an object that move together.</li> <li>• To know that a slider mechanism moves an object from side to side.</li> <li>• To know that a slider mechanism has a slider, slots, guides and an object.</li> <li>• To know that bridges and guides are bits of card that purposefully restrict the movement of the slider.</li> </ul> | <ul style="list-style-type: none"> <li>• Knowing that the design criteria help when thinking of ideas.</li> <li>• Using labels to explain parts of a design, label materials, etc.</li> <li>• Using labels to explain parts of a design, label materials, etc.</li> <li>• Knowing that drawings can help explain how something works.</li> <li>• Knowing that a label explains part of a drawing</li> <li>• Choosing materials, ingredients or components from a wider range of materials, ingredients or components.</li> <li>• Explaining their choices based on the</li> </ul> | <p>communicate ideas. (eg. sketches, cross-sectional diagram, thumbnail sketches and exploded diagrams).</p> <p>Selecting equipment required for a series of tasks based on the plan. Explain why each piece is suitable for each stage.</p> <ul style="list-style-type: none"> <li>• Suggesting simple safety rules based on their understanding of tool dangers.</li> <li>• Participating in discussions about classroom safety procedures.</li> <li>• Cutting out more complex shapes accurately.</li> <li>• Handle different sizes and types of</li> </ul> |        | <ul style="list-style-type: none"> <li>• Suggesting points for improvement.</li> <li>• To know that mechanisms control movement.</li> <li>• To understand that mechanisms can be used to change one kind of motion into another.</li> <li>• To understand how to use sliders, pivots and folds to create paper-based mechanisms.</li> <li>• To know that a design brief is a description of what I am going to design and make.</li> <li>• To know that designers often want to hide mechanisms to make a product more aesthetically pleasing.</li> </ul> |        |



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| Design Technology | Year 1                                                                                                             | Year 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Year 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Year 4 | Year 5 | Year 6 |
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|                   | <ul style="list-style-type: none"> <li>To know that in Design and technology we call a plan a 'design'.</li> </ul> | <p>properties of materials and components.</p> <ul style="list-style-type: none"> <li>Knowing some properties of materials like hard, soft, flexible, waterproof, strong etc.</li> <li>Following and recalling simple safety instructions.</li> <li>Knowing that some tools are sharp like scissors and knives.</li> <li>Choosing known geometric shapes when making.</li> <li>Beginning to shape objects to improve how they work.</li> <li>Knowing the names of some geometric shapes: triangle, pyramid, square, cube, circle, sphere.</li> <li>Considering balance in their</li> </ul> | <p>scissors with confidence.</p> <ul style="list-style-type: none"> <li>Using PVA glue to join corrugated card and light wood (e.g. balsa wood).</li> <li>Choosing shapes to suit the function of a product.</li> <li>Painting or colouring precisely to improve the finish.</li> <li>Making facades from a range of materials.</li> <li>Sealing edges with tape to cover gaps in joins.</li> </ul> <p>Analysing why specific products, designers or inventors are successful.</p> <ul style="list-style-type: none"> <li>Evaluating their designs by comparing them</li> </ul> |        |        |        |



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| Design Technology | Year 1 | Year 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Year 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Year 4 | Year 5 | Year 6 |
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|                   |        | <p>finishing, like evenly spaced decoration.</p> <ul style="list-style-type: none"> <li>• Discussing a range of existing products and saying what they like and dislike about them.</li> <li>• Evaluating existing products against design criteria.</li> <li>• Evaluating their ideas and creations against simple design criteria.</li> <li>• Knowing that design criteria help to decide if their product is a success.</li> <li>• Suggesting improvements to their peers' designs and products</li> <li>• Knowing that improve means to make something better.</li> </ul> | <p>against design criteria and considering feedback from peers to suggest improvements.</p> <ul style="list-style-type: none"> <li>• Explaining why they think certain aspects of a peer's design are effective or why they suggested specific improvements.</li> <li>• Reflecting on feedback to decide if and how it could be used to improve future iterations.</li> </ul> <p>Beginning to understand how mechanisms work.</p> <ul style="list-style-type: none"> <li>• Recognising pneumatic systems in everyday objects (e.g. car boot, adjustable chair.)</li> </ul> <p><b>Additional</b></p> |        |        |        |



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| Design Technology | Year 1 | Year 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Year 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Year 4 | Year 5 | Year 6 |
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|                   |        | <ul style="list-style-type: none"> <li>• Knowing that their suggestions can improve someone else's work.</li> <li>• To know everyday objects have mechanisms.</li> <li>• To know many things that move have parts inside to help them work.</li> <li>• To know mechanisms usually limit unwanted movement.</li> <li>• To know everyday objects utilise wheels and axles.</li> <li>• To know wheels must be able to turn to work effectively.</li> <li>• To know axles allow wheels to turn without falling off.</li> <li>• To know the features of a</li> </ul> | <ul style="list-style-type: none"> <li>• To know that a problem or need is something that a designer can help to solve.</li> <li>• To know that extra information on drawings or diagrams can help the user understand a design or idea.</li> <li>• To know that thumbnail sketches are less detailed quick sketches.</li> <li>• To know that a cross-sectional diagram shows the inside of a product.</li> <li>• To know that an exploded diagram shows how the parts of a product fit together.</li> <li>• To know that different pieces of equipment will be</li> </ul> |        |        |        |



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| Design Technology | Year 1 | Year 2                                                                              | Year 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Year 4 | Year 5 | Year 6 |
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|                   |        | fairground wheel include the wheel, frame, pods, a base an axle and an axle holder. | <p>used at different stages in a plan.</p> <ul style="list-style-type: none"><li>• To know that different tools and equipment have different dangers.</li><li>• To know that scissors are useful for cutting out complex shapes,</li><li>• To know that designers and inventors create products.</li><li>• To know that choices of materials and equipment can affect the final product.</li><li>• To know that feedback is ideas and suggestions from other people that can help improve their work.</li><li>• To know that they can choose to use feedback or not.</li></ul> |        |        |        |



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| Design Technology | Year 1 | Year 2 | Year 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Year 4 | Year 5 | Year 6 |
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|                   |        |        | <ul style="list-style-type: none"><li>• To understand that a mechanical system can allow us to move something more easily.</li><li>• To know that mechanical systems have more than one mechanism that moves to make them work.</li><li>• To know that mechanical systems are often hidden in products to make them look more appealing.</li><li>• To know that pushing air can be used to move a mechanism.</li><li>• To know that pivots can be used to create more movement in the mechanical system.</li><li>• To know that a combination of</li></ul> |        |        |        |



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| Design Technology                                                                                        | Year 1                                                                                                                                                                                                                                                                                                                                         | Year 2 | Year 3                            | Year 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Year 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Year 6 |
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|                                                                                                          |                                                                                                                                                                                                                                                                                                                                                |        | mechanisms can improve a product. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |
| <b>Structures</b><br><br><b>Design</b><br><br><b>Make</b><br><br><b>Evaluate</b><br><br><b>Knowledge</b> | Constructing a Windmill<br><br>Learning the importance of a clear design criteria.<br>• Including individual preferences and requirements in a design.<br><br>Making stable structures from card.<br>• Following instructions to cut and assemble the supporting structure of a windmill.<br>• Making functioning turbines and axles which are |        |                                   | Pavilions<br><br>• Designing a stable pavilion structure that is aesthetically pleasing and selecting materials to create a desired effect.<br>• Building frame structures designed to support weight.<br><br>Creating a range of different shaped frame structures.<br>• Making a variety of free standing frame structures of different shapes and sizes.<br>• Selecting appropriate materials to build a strong structure and cladding.<br>• Reinforcing corners to strengthen a structure.<br>• Creating a design in accordance with a plan.<br><br>Evaluating structures made by the class. | Bridges<br><br>• Designing a stable structure that is able to support weight.<br>• Creating a frame structure with a focus on triangulation.<br><br>Making a range of different shaped beam bridges.<br>• Using triangles to create truss bridges that span a given distance and support a load.<br>• Building a wooden bridge structure.<br>• Independently measuring and marking wood accurately.<br>• Selecting appropriate tools and equipment for particular tasks. |        |



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| Design Technology | Year 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Year 2 | Year 3 | Year 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Year 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Year 6 |
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|                   | <p>assembled into a main supporting structure.</p> <ul style="list-style-type: none"><li>• Finding the middle of an object.</li><li>• Puncturing holes.</li><li>• Adding weight to structures.</li><li>• Creating supporting structures.</li></ul> <p>• Evaluating a windmill according to the design criteria, testing whether the structure is strong and stable and altering it if it isn't.</p> <ul style="list-style-type: none"><li>• Suggest points for improvements.</li></ul> |        |        | <ul style="list-style-type: none"><li>• Describing what characteristics of a design and construction made it the most effective.</li><li>• Considering effective and ineffective designs.</li><li>• Learning to create different textural effects with materials.</li></ul> <p>To understand what a frame structure is.</p> <ul style="list-style-type: none"><li>• To know that a 'free-standing' structure is one which can stand on its own.</li></ul> <p>To know that a pavilion is a a decorative building or structure for leisure activities.</p> <ul style="list-style-type: none"><li>• To know that cladding can be applied to structures for different effects.</li><li>• To know that aesthetics are how a product looks.</li><li>• To know that a product's function means its purpose.</li></ul> | <ul style="list-style-type: none"><li>• Using the correct techniques to saws safely.</li><li>• Identifying where a structure needs reinforcement and using card corners for support.</li><li>• Explaining why selecting appropriating materials is an important part of the design process.</li><li>• Understanding basic wood functional properties.</li></ul> <p>• Adapting and improving own bridge structure by identifying points of weakness and reinforcing them as necessary.</p> <ul style="list-style-type: none"><li>• Suggesting points for improvements for own bridges and those designed by others.</li></ul> |        |



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| Design Technology | Year 1                                                                                                                                                                                                                                                                                                                                                                                                                                           | Year 2 | Year 3 | Year 4                                                                                                                                                                                                                                           | Year 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Year 6 |
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|                   | <p>To understand that cylinders are a strong type of structure (e.g. the main shape used for windmills and lighthouses).</p> <ul style="list-style-type: none"> <li>• To understand that axles are used in structures and mechanisms to make parts turn in a circle.</li> <li>• To begin to understand that different structures are used for different purposes.</li> <li>• To know that a structure is something that has been made</li> </ul> |        |        | <ul style="list-style-type: none"> <li>• To understand that the target audience means the person or group of people a product is designed for.</li> <li>• To know that architects consider light, shadow and patterns when designing.</li> </ul> | <p>To understand some different ways to reinforce structures.</p> <ul style="list-style-type: none"> <li>• To understand how triangles can be used to reinforce bridges.</li> <li>• To know that properties are words that describe the form and function of materials.</li> <li>• To understand why material selection is important based on properties.</li> <li>• To understand the material (functional and aesthetic) properties of wood.</li> </ul> <p>To understand the difference between arch, beam, truss and suspension bridges.</p> |        |



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| Design Technology | Year 1                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Year 2 | Year 3 | Year 4 | Year 5                                                                                             | Year 6 |
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|                   | <p>and put together.</p> <ul style="list-style-type: none"><li>• To know that the sails or blades of a windmill are moved by the wind.</li><li>• To know that a structure is something built for a reason.</li><li>• To know that stable structures do not topple.</li><li>• To know that adding weight to the base of a structure can make it more stable.</li><li>• To know that design criteria is a list of points to ensure the product meets</li></ul> |        |        |        | <ul style="list-style-type: none"><li>• To understand how to carry and use a saw safely.</li></ul> |        |



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| Design Technology | Year 1                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
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|                   | <p>the clients needs and wants.</p> <ul style="list-style-type: none"><li>• To know that a windmill harnesses the power of wind for a purpose like grinding grain, pumping water or generating electricity.</li><li>• To know that windmill turbines use wind to turn and make the machines inside work.</li><li>• To know that a windmill is a structure with sails that are moved by the wind.</li><li>• To know the three main parts of a windmill are</li></ul> |        |        |        |        |        |



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| Design Technology                                                                   | Year 1                                                                                                                    | Year 2 | Year 3                                                                                                                                                                                                                                                                                                                   | Year 4 | Year 5 | Year 6                                                                                                                                                                                                                                                                                                                                                 |
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|                                                                                     | the turbine, axle and structure.<br>• To know that windmills are used to generate power and were used for grinding flour. |        |                                                                                                                                                                                                                                                                                                                          |        |        |                                                                                                                                                                                                                                                                                                                                                        |
| <b>Electrical System</b><br><br>Design<br><br>Make<br><br>Evaluate<br><br>Knowledge |                                                                                                                           |        | Electrical Poster<br><br>Carry out research based on a given topic (e.g. The Romans) to develop a range of initial ideas.<br>• Generate a final design for the electric poster with consideration to the client's needs and design criteria.<br>• Design an electric poster that fits the requirements of a given brief. |        |        | Navigating the world<br><br>Writing a design brief from information submitted by a client.<br>• Developing design criteria to fulfil the client's request.<br>• Considering and suggesting additional functions for my navigation tool.<br>• Developing a product idea through annotated sketches.<br>• Placing and manoeuvring 3D objects, using CAD. |



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|                   |        |        | <ul style="list-style-type: none"> <li>• Plan the positioning of the bulb (circuit component) and its purpose.</li> </ul> <p>Create a final design for the electric poster.</p> <ul style="list-style-type: none"> <li>• Mount the poster onto corrugated card to improve its strength and allow it to withstand the weight of the circuit on the rear.</li> <li>• Measure and mark materials out using a template or ruler.</li> <li>• Fit an electrical component (bulb).</li> <li>• Learn ways to give the final product a higher quality finish (e.g. framing to conceal a roughly cut edge).</li> </ul> |        |        | <ul style="list-style-type: none"> <li>• Changing the properties of, or combining one or more 3D objects, using CAD.</li> </ul> <p>Considering materials and their functional properties, especially those that are sustainable and recyclable (for example, cork and bamboo).</p> <ul style="list-style-type: none"> <li>• Explaining material choices and why they were chosen as part of a product concept.</li> <li>• Programming an N,E, S, W cardinal compass.</li> </ul> <p>Explaining how my program fits the design criteria and how it would be useful as part of a navigation tool.</p> <ul style="list-style-type: none"> <li>• Developing an awareness of sustainable design.</li> </ul> |



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|                   |        |        | <p>Learning to give and accept constructive criticism on own work and the work of others.</p> <ul style="list-style-type: none"> <li>• Testing the success of initial ideas against the design criteria and justifying opinions.</li> <li>• Revisiting the requirements of the client to review developing design ideas and check that they fulfil their needs</li> </ul> <p>To understand that an electrical system is a group of parts (components) that work together to transport electricity around a circuit.</p> <ul style="list-style-type: none"> <li>• To understand common features of</li> </ul> |        |        | <ul style="list-style-type: none"> <li>• Identifying key industries that utilise 3D CAD modelling and explaining why.</li> <li>• Describing how the product concept fits the client's request and how it will benefit the customers.</li> <li>• Explaining the key functions in my program, including any additions.</li> <li>• Explaining how my program fits the design criteria and how it would be useful as part of a navigation tool.</li> <li>• Explaining the key functions and features of my navigation tool to the client as part of a product concept pitch.</li> <li>• Demonstrating a functional program as part of a product concept pitch.</li> </ul> |



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|-------------------|--------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   |        |        | <p>an electric product (switch, battery or plug, dials, buttons etc.).</p> <ul style="list-style-type: none"><li>• To list examples of common electric products (kettle, remote control etc.).</li><li>• To understand that an electric product uses an electrical system to work (function).</li><li>• To know the name and appearance of a bulb, battery, battery holder and crocodile wire to build simple circuits</li></ul><br><ul style="list-style-type: none"><li>• To understand the importance and purpose of information design.</li><li>• To understand how material choices</li></ul> |        |        | <ul style="list-style-type: none"><li>• To know that accelerometers can detect movement.</li><li>• To understand that sensors can be useful in products as they mean the product can function without human input.</li></ul><br><ul style="list-style-type: none"><li>• To know that designers write design briefs and develop design criteria to enable them to fulfil a client's request.</li><li>• To know that 'multifunctional' means an object or product has more than one function.</li><li>• To know that magnetometers are devices that measure the Earth's magnetic field to determine which direction you are facing.</li></ul> |



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| Design Technology                                                                | Year 1                                                                                                                                                                                  | Year 2                                                                                                                                                                                                                                                                           | Year 3                                                                                                                                                                                                                                                                                  | Year 4                                                                                                                                                                                                                                                                                                                             | Year 5                                                                                                                                                                                                                                                                       | Year 6                                                                                                                                                                                                                                                                                                                      |
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|                                                                                  |                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                  | (such as mounting paper to corrugated card) can improve a product to serve its purpose (remain rigid without bending when the electrical circuit is attached).                                                                                                                          |                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                             |
| Cooking and Nutrition<br><br>Design<br><br>Make<br><br>Evaluate<br><br>Knowledge | Smoothies<br><br>Designing smoothie carton packaging by-hand.<br>• Learning where and how fruits and vegetables grow.<br><br>• Chopping fruit and vegetables safely to make a smoothie. | A Balanced Diet<br><br>Designing three wrap ideas.<br><br>Chopping foods safely to make a wrap.<br>• Constructing a wrap that meets a design brief.<br>• Grating foods to make a wrap.<br>• Snipping smaller foods instead of cutting.<br>• Spreading soft foods to make a wrap. | Cooking seasonally<br><br>• To know that seasonal means foods that grow in a given season in a given country.<br>• To know some seasonal foods that grow in the UK and what season they grow in.<br>• To know that eating seasonal foods can have a positive impact on the environment. | Adapting a Recipe<br><br>Designing a biscuit within a given budget.<br>• Conducting market research.<br><br>Following a baking recipe.<br>• Understanding safety and hygiene rules.<br>• Adapting a recipe.<br><br>Evaluating an adapted recipe.<br>• Evaluating and comparing a range of products.<br>• Suggesting modifications. | Developing a recipe<br><br>Researching existing recipes.<br>• Suggesting alternative ingredients.<br>• Designing a jar label.<br><br>• Writing an alternative recipe.<br>• Understanding cross-contamination.<br>• Using preparation skills.<br>• Making a developed recipe. | Come Dine with me<br><br>Writing a recipe, explaining the key steps, method and ingredients.<br>• Including facts and drawings from research undertaken.<br><br>Following a recipe, including using the correct quantities of each ingredient.<br>• Adapting a recipe based on research.<br>• Working to a given timescale. |



## Kings Meadow Primary School

### Design Technology Progression of Skills

| Design Technology | Year 1                                                                                                                                                                                                                                                                                                                                                                                 | Year 2                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Year 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Year 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Year 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Year 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   | <ul style="list-style-type: none"> <li>• Juicing fruits safely to make a smoothie.</li> <li>• Identifying if a food is a fruit.</li> <li>Tasting and evaluating different food combinations.</li> <li>• Describing appearance, smell and taste.</li> <li>• Suggesting information to be included on packaging.</li> <li>• Comparing their own smoothie with someone else's.</li> </ul> | <ul style="list-style-type: none"> <li>• Identifying the five food groups.</li> <li>• Learning about balanced diet.</li> <li>Describing appearance, smell and taste.</li> <li>• Taste and evaluating different food combinations.</li> <li>• Describing the information that should be included on a label.</li> <li>• To know that 'diet' means the food and drink that a person or animal usually eats.</li> <li>• To know what makes a balanced diet.</li> </ul> | <ul style="list-style-type: none"> <li>• To know how to describe the flavour and texture of foods.</li> <li>• To know how to cut a peel safely.</li> <li>• To know that the appearance of food is as important as taste.</li> <li>• To know that similar coloured fruits and vegetables often have similar nutritional benefits.</li> <li>• To know that a blender is a machine which mixes ingredients together into a smooth liquid.</li> <li>• To know that a fruit has seeds and a vegetable does not.</li> </ul> | <ul style="list-style-type: none"> <li>• To know that the amount of an ingredient in a recipe is known as the 'quantity.'</li> <li>• To know that safety and hygiene are important when cooking.</li> <li>• To know the following cooking techniques: sieving, measuring, stirring, cutting out and shaping.</li> <li>• To know the importance of budgeting while planning ingredients for a recipe.</li> <li>• To know that products often have a target audience.</li> </ul> | <ul style="list-style-type: none"> <li>• Explaining the farm to fork process.</li> <li>• Analysing nutritional content</li> <li>• To know that beef comes from cows reared on farms.</li> <li>• To know that recipes can be adapted to suit nutritional needs and dietary requirements.</li> <li>• To know that nutritional information is found on food packaging.</li> <li>• To know that coloured chopping boards can prevent cross-contamination.</li> <li>• To know that food packaging serves many purposes.</li> </ul> | <ul style="list-style-type: none"> <li>• Working safely and hygienically with independence.</li> </ul> <p>Evaluating a recipe, considering: taste, smell, texture and origin of the food group.</p> <ul style="list-style-type: none"> <li>• Taste testing and scoring final products.</li> <li>• Suggesting and writing up points of improvements in productions.</li> <li>• Evaluating health and safety in production to minimise cross contamination.</li> <li>• To know that 'flavour' is how a food or drink tastes.</li> <li>• To know that many countries have 'national dishes' which are recipes associated with that country.</li> <li>• To know that 'processed food' means food that has been put through multiple changes in a factory.</li> </ul> |



## Kings Meadow Primary School

### Design Technology Progression of Skills



| Design Technology | Year 1 | Year 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Year 3                                                                                                                                                                                                                                      | Year 4 | Year 5 | Year 6                                                                                                                                                                                                                                                                                    |
|-------------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   |        | <ul style="list-style-type: none"> <li>• To know that the five main food groups are:<br/>Carbohydrates, fruits and vegetables, protein, dairy and foods high in fat and sugar.</li> <li>• To know that I should eat a range of different foods from each food group, and roughly how much of each food group.</li> <li>• To know that 'ingredients' means the items in a mixture or recipe.</li> <li>• To know how to cut, grate, snip and spread to prepare foods.</li> <li>• To know how to review and give a score to evaluate.</li> </ul> | <ul style="list-style-type: none"> <li>• To know that fruits grow on trees or vines.</li> <li>• To know that vegetables can grow either above or below ground.</li> <li>• To know that vegetables is any edible part of a plant.</li> </ul> |        |        | <ul style="list-style-type: none"> <li>• To understand that it is important to wash fruit and vegetables before eating to remove any dirt and insecticides.</li> <li>• To understand what happens to a certain food before it appears on the supermarket shelf (Farm to Fork).</li> </ul> |