



**Mabe School**

**Design & Technology Progressive Skills Grid**

	<b><u>Year 1</u></b>	<b><u>Year 2</u></b>	<b><u>Year 3</u></b>	<b><u>Year 4</u></b>	<b><u>Year 5</u></b>	<b><u>Year 6</u></b>
<b>Developing, planning and communicating ideas.</b>	<p>Pupils begin to draw on their own experience to help generate ideas and research conducted on criteria.</p> <p>Pupils begin to understand the development of existing products: explain what they are for, how they work, what materials have been used.</p> <p>Pupils start to suggest ideas and explain what they are going to do.</p> <p>Pupils understand how to identify a target group for what they intend to design and make based on a design criteria.</p> <p>Pupils begin to develop their ideas through talk and simple drawings.</p> <p>Pupils communicate with others about how they want to construct their product.</p>	<p>Pupils start to generate ideas by drawing on their own and other people's experiences.</p> <p>Pupils begin to develop their design ideas through discussion, observation, drawing and modelling.</p> <p>Pupils identify a purpose for what they intend to design and make.</p> <p>Pupils understand how to identify a target group for what they intend to design and make based on a design criteria.</p> <p>Pupils develop their ideas through talk and drawings and label parts.</p> <p>Pupils begin to explain why they chose a certain material.</p>	<p>With growing confidence, Pupils generate ideas for an item considering its purpose and the user.</p> <p>Pupils start to order the main stages of making a product.</p> <p>When planning, Pupils explain their choice of materials and components including function and aesthetics.</p> <p>Pupils can put together a step by step plan which shows the order and what equipment and tools they need.</p>	<p>Pupils start to generate ideas, considering the purposes for which they are designing.</p> <p>Pupils confidently make labelled drawings from different views showing specific features.</p> <p>Pupils develop a clear plan on the process and how to use materials, equipment and suggesting alternative methods if the first attempt fails.</p> <p>When planning, Pupils explain their choice of materials and components including function and aesthetics considering the views of others to improve their work.</p>	<p>Pupils start to generate, develop, model and communicate their ideas through discussion, annotated sketches and diagrams.</p> <p>Pupils begin to use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose.</p> <p>With growing confidence, Pupils apply a range of finishing techniques, including those from art and design</p> <p>Pupils draw up a specification for their design-link with Mathematics and Science.</p> <p>With growing confidence select appropriate materials, tools and techniques.</p> <p>Pupils start to understand how much</p>	<p>Pupils generate, develop, model and communicate their ideas through discussion, annotated sketches, cross sectional and exploded diagrams, prototypes, and pattern.</p> <p>Pupils confidently use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose.</p> <p>Pupils accurately apply a range of finishing techniques, including those from art and design.</p> <p>Pupils confidently draw up a specification for their design- link with Mathematics and Science.</p> <p>Plan the order of their work, choosing appropriate materials, tools and techniques.</p>



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					<p>products cost to make, how sustainable and innovative they are and the impact products have beyond their intended purpose.</p> <p>Pupils produce a detailed step-by step plan.</p> <p>Pupils suggest some alternative plans and say what the good points and drawbacks are about each.</p> <p>Pupils explain how their product will appeal to the audience.</p>	<p>Pupils suggest alternative methods of making if the first attempts fail. Identify the strengths and areas for development in their ideas and products.</p> <p>Pupils know how much products cost to make, how sustainable and innovative they are and the impact products have beyond their intended purpose.</p> <p>Pupils use market research to inform plans.</p> <p>Pupils suggest ideas about how their product could be sold and work within a given budget.</p>
<p><b>Working with tools, equipment, materials and components to make quality products</b></p>	<p>Pupils begin to make their design using appropriate techniques.</p> <p>Pupils begin to build structures, exploring how they can be made stronger, stiffer and more stable.</p>	<p>Pupils begin to select tools and materials; use correct vocabulary to name and describe them.</p> <p>Pupils build structures, exploring how they can be made stronger, stiffer and more stable.</p>	<p>Pupils select a wider range of tools and techniques for making their product.</p> <p>Pupils can explain their choice of tools and equipment in relation to the skills and</p>	<p>Pupils select and wider range of tools and techniques for making their product safely.</p> <p>Pupils know how to measure, mark out, cut and shape a range of materials, using appropriate tools,</p>	<p>Pupils select appropriate materials, tools and techniques e.g. cutting, shaping, joining and finishing, accurately.</p> <p>Pupils select from and use a wider range of materials and components, including</p>	<p>Pupils confidently select appropriate tools, materials, components and techniques and use them with accuracy.</p> <p>Pupils aim to make and to achieve a quality product.</p>



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	<p>Pupils explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</p> <p>Pupils identify and talk about products which use electricity to make them work</p> <p>With help Pupils measure, mark out, cut and shape a range of materials.</p> <p>Pupils explore using tools e.g. scissors and a hole punch safely.</p> <p>Pupils begin to assemble, join and combine materials and components together using a variety of temporary methods e.g. glues or masking tape.</p> <p>Pupils begin to use simple finishing techniques to improve the appearance of their product.</p>	<p>With help Pupils measure, cut and score with some accuracy.</p> <p>Pupils start to assemble, join and combine materials in order to make a product.</p> <p>Pupils start to choose and use appropriate finishing techniques based on their own ideas.</p> <p>Pupils join fabric using a running stitch, glue and tape.</p>	<p>techniques they will be using.</p> <p>Pupils start to use simple electrical circuits and mechanical systems.</p> <p>Pupils measure, mark out, cut, score and assemble components with more accuracy.</p> <p>Pupils select the most appropriate too and techniques for the given task.</p> <p>Pupils begin to make choices of materials both for its appearance and qualities.</p> <p>Pupils begin to use some simple stitches.</p>	<p>equipment and techniques.</p> <p>Pupils begin to combine components and materials in different ways.</p> <p>Pupils demonstrate how to measure, tape, pin, cut and join with accuracy.</p> <p>Pupils use some finishing techniques to strengthen and improve the appearance of their product using a range of equipment.</p> <p>Pupils use a range of different stitches to join fabric.</p>	<p>construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.</p> <p>Pupils can combine components and materials in different ways with accuracy.</p> <p>Pupils know how more complex electrical circuits and components can be used to create functional products.</p> <p>Pupils use a variety of finishing techniques to strengthen and improve the appearance of their product using a range of equipment.</p> <p>Pupils demonstrate motivation/perseverance to refine and improve their products.</p>	<p>Pupils demonstrate when to make modifications as they go along.</p> <p>Pupils know how to combine complex electrical circuits and components to create functional products.</p> <p>Pupils use finishing techniques to strengthen and improve the appearance of their product using a range of equipment.</p> <p>Pupils make decisions and select the most appropriate mechanical system for a particular purpose.</p>
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<p><b>Evaluating processes and products</b></p>	<p>Pupils start to evaluate their product by discussing how well it works in relation to the purpose.</p> <p>When looking at existing products, Pupils explain what they like and dislike about the products and why.</p> <p>Pupils begin to evaluate their products as they are developed, identifying strengths and possible changes they might make next time.</p>	<p>Pupils evaluate their work against their design criteria.</p> <p>Pupils look at a range of existing products explain what they like and dislike about products and why.</p> <p>Pupils evaluate their products as they are developed, identifying what went well and possible changes they might make next time.</p>	<p>Pupils start to evaluate their product against their original design criteria.</p> <p>Pupils suggest improvements to their final design.</p> <p>Pupils begin to evaluate familiar products and consider the views of others to improve them.</p>	<p>Pupils evaluate their product throughout the process making some simple changes where necessary.</p> <p>Pupils evaluate their products carrying out simple tests.</p> <p>Pupils can evaluate their products, thinking of both appearance and function.</p>	<p>Pupils start to evaluate a product against the original design specification and by carrying out appropriate tests.</p> <p>Pupils evaluate their work both during and at the end of the assignment and seek evaluation from others.</p> <p>Pupils evaluate appearance and function against original criteria.</p>	<p>Pupils evaluate their products, identifying strengths and areas for development, and carry out appropriate tests.</p> <p>Pupils evaluate their work continuously both during and at the end of the assignment and frequently seek evaluation from others.</p> <p>Pupils record their evaluations using drawings with labels.</p>
<p><b>Cooking &amp; Nutrition</b></p>	<p>Pupils begin to understand that all food comes from plants or animals.</p> <p>Pupils start to understand how to name and sort foods into the five groups.</p> <p>Pupils know that everyone should eat at least five portions of fruit and vegetables every day.</p>	<p>Pupils understand that all food comes from plants or animals.</p> <p>Pupils develop understanding of where different foods come from and also food from native to different countries.</p> <p>Pupils understand how to name and sort foods into the five groups in</p>	<p>Pupils start to know that food is grown, reared and caught in the UK, Europe and the wider world.</p> <p>Pupils understand how to prepare and cook a variety of dishes including having experience of using a heat source.</p> <p>Pupils begin to understand how to use a range of techniques</p>	<p>Pupils know that food is grown, reared and caught in the UK, Europe and the wider world.</p> <p>Pupils understand how to prepare and cook a variety of predominantly savoury dishes including having experience of using a heat source.</p> <p>Pupils understand how to use a range of</p>	<p>Pupils begin to explain how ingredients are grown, reared and caught in the UK, Europe and the wider world.</p> <p>Pupils begin to understand that seasons may affect the food available.</p> <p>Pupils understand how food is processed into ingredients that can be eaten or used in cooking.</p>	<p>Pupils explain how ingredients are grown, reared and caught.</p> <p>Pupils understand that seasons may affect the food available.</p> <p>Pupils explain how food is processed into ingredients that can be eaten or used in cooking.</p> <p>Pupils know how to prepare and cook a</p>



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	<p>Pupils know how to prepare simple dishes safely and hygienically, without using a heat source.</p> <p>Pupils begin to use techniques such as cutting, peeling and grating.</p> <p>Pupils measure and weigh food items using non-standard measures (e.g. spoons and cups).</p>	<p>Pupils recognise the need for a variety of food in a diet.</p> <p>Pupils demonstrate how to prepare simple dishes safely and hygienically, without using a heat source.</p> <p>Pupils demonstrate how to use techniques such as cutting, peeling and grating.</p>	<p>such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.</p> <p>Pupils know that a healthy diet is made up from a variety and balance of different food and drink.</p> <p>Pupils begin to know that to be active and healthy, food and drink are needed to provide energy.</p>	<p>techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.</p> <p>Pupils measure and weigh ingredients accurately.</p> <p>Pupils understand why a healthy diet is important.</p> <p>Pupils know that to be active and healthy, food and drink are needed to provide energy.</p> <p>Pupils understand what to do to be safe and hygienic.</p>	<p>Pupils know how to prepare and cook a variety of predominantly savoury dishes including the use of a heat source.</p> <p>Pupils demonstrate increasing confidence in how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.</p> <p>Pupils evaluate a meal and consider if they contribute towards a balanced diet</p> <p>Pupils begin to understand that different food and drink contain different substances that are needed for health.</p> <p>Pupils explain what times of year particular foods are eaten in.</p> <p>Pupils begin to use appropriate tools and equipment, weighing and measuring with scales.</p>	<p>variety of predominantly savoury dishes safely and hygienically including the use of a heat source.</p> <p>Pupils confidently use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.</p> <p>Pupils know different food and drink contain different substances that are needed for health.</p> <p>Pupils use appropriate tools and equipment, weighing and measuring with scales.</p> <p>Pupils plan a healthy and affordable diet.</p>
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