



## DT Progression of Skills: Riverbridge Primary School

	Foundation	MA	Year 1	MA	Year 2	MA
Developing, planning and communicating ideas	<ul style="list-style-type: none"> <li>Explain what they are making and which materials they are using.</li> <li>Select materials from a limited range that will meet a simple design criteria e.g. shiny.</li> <li>Select and name the tools they need e.g. scissors.</li> <li>Describe simple models or drawings of ideas.</li> <li>Plan by suggesting what to do next as their ideas develop.</li> <li>Construct with a purpose in mind, using a variety of resources.</li> </ul>	<ul style="list-style-type: none"> <li>Use a range of tools and equipment to perform tasks e.g. cutting, joining and finishing.</li> <li>Communicate ideas using different methods, including drawing and making models.</li> </ul>	<ul style="list-style-type: none"> <li>Create simple designs for a product.</li> <li>Draw on their own experience to suggest ideas.</li> <li>Use pictures and words to describe what they want to do.</li> <li>Select from and use a range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing.</li> </ul>	<ul style="list-style-type: none"> <li>Identify a target group for what they intend to design and make.</li> <li>Develop their design ideas, applying findings from their earlier research.</li> </ul>	<ul style="list-style-type: none"> <li>Generate ideas by drawing on their own and other people's experiences.</li> <li>Develop their design ideas through discussion, observation, drawing and modelling.</li> <li>Design purposeful, functional, appealing products for themselves and other users based on a design criteria.</li> <li>Generate, develop, model and communicate their ideas through talking, drawing, templates and labelling parts.</li> </ul>	<ul style="list-style-type: none"> <li>Identify a purpose and success criteria for what they intend to design and make.</li> <li>Use knowledge of existing products to design their own functional product.</li> </ul>
Working with tools, equipment, materials and components to make quality products	<ul style="list-style-type: none"> <li>Use simple tools and techniques competently and safely.</li> <li>Build structures with a wide range of objects, adapting their work where necessary.</li> <li>Select the tools and techniques they need to shape, assemble and join the materials they are using.</li> <li>Join components together to build and balance.</li> <li>Realise that tools can be used for a purpose.</li> <li>Investigate various construction materials.</li> </ul>	<ul style="list-style-type: none"> <li>Begin to use simple finishing techniques to add details to their product.</li> </ul>	<ul style="list-style-type: none"> <li>Make their design using appropriate techniques.</li> <li>Begin to build structures, exploring how they can be made stronger and more stable.</li> <li>Explore and use mechanisms, for example, levers and sliders.</li> <li>With help, measure, mark out, cut and shape a range of materials.</li> <li>Explore using tools safely e.g. scissors and a hole punch.</li> <li>Use a range of simple tools to cut, join and combine materials and components safely e.g. glue or masking tape.</li> <li>Begin to use simple finishing techniques to improve the appearance of their product.</li> </ul>	<ul style="list-style-type: none"> <li>Use appropriate finishing techniques.</li> <li>Explore different methods of making structures more stable.</li> </ul>	<ul style="list-style-type: none"> <li>Use hand tools safely and appropriately.</li> <li>Assemble, join and combine materials in order to make a product.</li> <li>Use basic sewing techniques to join fabric.</li> <li>Use appropriate finishing techniques.</li> <li>Choose appropriate tools, equipment, techniques and materials from a wide range. Use correct vocabulary to name and describe them.</li> <li>Explore different methods of making structures more stable.</li> <li>Explore and use mechanisms e.g. wheels and axles, in their products.</li> </ul>	<ul style="list-style-type: none"> <li>Safely measure, mark out, cut and shape materials using different tools.</li> <li>Use finishing techniques to strengthen and improve the appearance of their product.</li> </ul>



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Evaluating processes and products	<ul style="list-style-type: none"> <li>• Talk about their ideas, saying what they like and dislike and explain why.</li> <li>• Identify what they could have done differently or how they could improve their work in the future.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Ask simple questions about existing products and those that they have made.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate their product against the design criteria.</li> <li>• When looking at existing products, explain what they like and dislike and why.</li> <li>• Ask simple questions about existing products and those that they have made.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Evaluate their products as they are developed, identifying strengths and possible changes they might make.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate their work against their design criteria.</li> <li>• Look at a range of existing products, discuss what they like and dislike about products and why.</li> <li>• Evaluate their products as they are developed, identifying strengths and possible changes they might make.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Evaluate their product against the original design criteria, including functionality as well as appearance.</i></li> </ul>
Food and Nutrition	<ul style="list-style-type: none"> <li>• Begin to develop a food vocabulary using taste, smell, texture and feel.</li> <li>• Explore familiar food products e.g. fruit and vegetables.</li> <li>• Stir, spread, knead and shape a range of food and ingredients.</li> <li>• Begin to work safely and hygienically.</li> <li>• Measure and weigh food items using non-statutory measures e.g. spoons, cups.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Start to think about the need for a variety of foods in a diet.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Talk about what they eat at home and begin to discuss what healthy foods are.</li> <li>• Say where some food comes from and give examples of food that is grown.</li> <li>• Understand that all food comes from plants or animals.</li> <li>• Understand that everyone should eat at least five portions of fruit/ vegetables every day.</li> <li>• Use simple tools, with help, to prepare food safely.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Know how to prepare simple dishes safely and hygienically, without using a heat source.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Understand that all food has to be farmed, grown or caught.</li> <li>• Name and sort foods.</li> <li>• Understand the need for a variety of food in a diet.</li> <li>• Demonstrate how to prepare simple dishes safely and hygienically, without using a heat source.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Use a wider range of cookery techniques to prepare food safely.</i></li> </ul>



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	Year 3	MA	Year 4	MA	Year 5	MA	Year 6	MA
Developing , planning and communicating ideas	<ul style="list-style-type: none"> <li>• Generate ideas for an item, considering its purpose and user.</li> <li>• Plan the order of the stages of their work.</li> <li>• Identify a purpose and establish criteria for a successful product.</li> <li>• Learn about inventors, designers, engineers and chefs who have developed ground-breaking products.</li> <li>• Create designs using labels, annotated sketches, cross-sectional diagrams and simple computer programmes.</li> <li>• Explore, develop and communicate design proposals by modelling ideas.</li> <li>• Use knowledge of existing products to design their own functional product.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>When planning, explain their choice of materials and components including their function and aesthetic qualities.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Generate ideas, considering the purposes for which they are designing.</li> <li>• Make labelled drawings from different views showing specific features.</li> <li>• Develop a clear idea of what has to be done, planning materials, equipment and processes.</li> <li>• Identify strengths and areas for development in their ideas and products.</li> <li>• Learn about inventors, designers, engineers and chefs who have developed ground-breaking products.</li> <li>• Create designs using exploded diagrams.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>When planning, consider the views of others, including intended users.</i></li> <li>• <i>Use their knowledge of techniques and the functional and aesthetic qualities of materials to make plans.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Generate ideas through brainstorming and identify a purpose for their product.</li> <li>• Communicate ideas through discussion, annotated sketches, exploded diagrams and prototypes.</li> <li>• Produce step by step plans to guide them in making products, applying their knowledge of different materials, tools and techniques.</li> <li>• Begin to use research and develop design criteria to inform the design of innovative, functional, appealing products.</li> <li>• Plan how to use materials, equipment and processes. Suggest alternative methods if the first attempts fail.</li> <li>• Apply a range of finishing techniques, including those from art and design.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Use the results of investigations and information sources, including ICT, when developing design ideas.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Generate and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes and computer-aided design.</li> <li>• Research famous designers and inventors.</li> <li>• Develop a design specification.</li> <li>• Accurately apply a range of finishing techniques, including those from art and design.</li> <li>• Plan the order of their work, choosing appropriate materials, tools and techniques. Suggest alternative methods of making if the first attempts fail.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Know how much products cost to make and the impact products have beyond their intended purpose.</i></li> <li>• <i>Use research into famous designers and inventors to inform the design of their own innovative products.</i></li> </ul>
Working with tools, equipment, materials and components to make quality products	<ul style="list-style-type: none"> <li>• Make suitable choices from a range of tools and materials e.g. construction materials, textiles, food ingredients, mechanical/electrical components and plan the main stages of using them.</li> <li>• Understand how mechanical systems such as levers and linkages create</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Use finishing techniques to strengthen and improve the appearance of their product.</i></li> <li>• <i>Strengthen frames</i></li> </ul>	<ul style="list-style-type: none"> <li>• Select a wider range of tools and techniques for making products safely.</li> <li>• Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques.</li> <li>• Know how mechanical systems such as cams, pulleys or gears create</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Measure, tape or pin, cut and join fabric with some accuracy.</i></li> <li>• <i>Use finishing techniques to strengthen and improve the appearance of their product, using a range of</i></li> </ul>	<ul style="list-style-type: none"> <li>• Select appropriate materials, tools and techniques e.g. cutting, shaping, joining and finishing, accurately.</li> <li>• Know how to use mechanical and electrical systems. Understand that they have an input, process and output.</li> <li>• Use different tools and equipment safely and accurately.</li> <li>• Weigh and measure</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Make precise measurements so that joins and holes are in exactly the right place.</i></li> <li>• <i>Select and use a wide range of materials and components</i></li> </ul>	<ul style="list-style-type: none"> <li>• Select and use appropriate tools, materials, components and techniques safely.</li> <li>• Pin, sew and stitch materials together.</li> <li>• Use technical knowledge to make modifications and problem solve during the making process.</li> <li>• Construct products using permanent joining techniques.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Apply their understanding of computing to program, monitor and control their product.</i></li> <li>• <i>Know how electrical circuits and components can be used to create</i></li> </ul>



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	<p>movement.</p> <ul style="list-style-type: none"> <li>• Safely measure, mark out, cut, and join fabric with some accuracy.</li> <li>• Work safely and accurately with a range of simple tools.</li> <li>• Think about their ideas as they make progress and make changes to improve their work.</li> <li>• Investigate existing products, considering a range of factors.</li> </ul>	<p>using diagonal struts.</p>	<p>movement.</p> <ul style="list-style-type: none"> <li>• Apply techniques they have learnt to strengthen structures.</li> <li>• Sew using a range of different stitches, to weave and knit.</li> <li>• Use techniques which require accuracy to cut, shape and join e.g. cutting internal shapes, slots in frameworks.</li> <li>• Understand and use electrical systems in products.</li> </ul>	<p>equipment including ICT.</p>	<p>accurately (time, dry ingredients and liquids).</p> <ul style="list-style-type: none"> <li>• Use finishing techniques to strengthen and improve the appearance of their product, using a range of equipment including ICT.</li> <li>• Build more complex 3D structures and apply their knowledge of strengthening techniques to make them stronger and more stable.</li> </ul>	<p>, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.</p>	<ul style="list-style-type: none"> <li>• Understand how mechanical systems such as cams, pulleys or gears create movement.</li> <li>• Understand that mechanical and electrical systems have an input, process and output.</li> <li>• Apply their knowledge of materials and techniques to refine and rework their product to improve its functional and aesthetic qualities.</li> <li>• Use a range of methods to strengthen and reinforce structures.</li> </ul>	<p>functional products.</p>
<p>Evaluating processes and products</p>	<ul style="list-style-type: none"> <li>• Evaluate their product against the original design criteria e.g. how well it meets its intended purpose.</li> <li>• Disassemble and evaluate familiar products and consider the views of others to improve them.</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate their work, both during and at the end of the assignment, carrying out appropriate tests.</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate existing products and identify criteria that can be used for their own designs.</li> <li>• Design a functional and appealing product for a particular purpose and audience.</li> <li>• Consider how their own finished products might be improved.</li> <li>• Evaluate their work, both during and at the end of the assignment.</li> </ul>	<ul style="list-style-type: none"> <li>• Carry out appropriate tests to inform the evaluation of their work.</li> <li>• Consider how well their own finished products meet the needs of the intended user.</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate a product against the original design specification by carrying out tests.</li> <li>• Evaluate their work both during and at the end of the assignment.</li> <li>• Evaluate key designs in design and technology that have helped shape the world.</li> <li>• Make detailed evaluations about existing products and ones they have made themselves, considering the views of others to improve their work.</li> </ul>	<ul style="list-style-type: none"> <li>• Use their knowledge of other designs to evaluate the effectiveness of products they have made.</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate their products, identifying strengths and areas for development. Carry out appropriate tests.</li> <li>• Evaluate their work both during and at the end of the assignment.</li> <li>• Make detailed evaluations against their original criteria and suggest ways that their product could be improved.</li> <li>• Consider the views of others when planning their next steps.</li> </ul>	<ul style="list-style-type: none"> <li>• Use their knowledge of famous designs to further explain the effectiveness of existing products and products they have made.</li> </ul>
<p>Food and Nutrition</p>	<ul style="list-style-type: none"> <li>• Understand that food is grown (such as wheat and potatoes), farmed (such as pigs and chickens) and caught (such as fish) in Europe and the wider world.</li> </ul>	<ul style="list-style-type: none"> <li>• Talk about and name food from each</li> </ul>	<ul style="list-style-type: none"> <li>• Understand how to prepare and cook a variety of dishes safely and hygienically including, where appropriate, the use of a heat source.</li> </ul>	<ul style="list-style-type: none"> <li>• Read and follow more complex recipes which involve several different processes, skills</li> </ul>	<ul style="list-style-type: none"> <li>• Understand seasonality and the advantages of eating seasonal and locally produced food.</li> <li>• Know how to prepare and cook a variety of dishes safely and hygienically</li> </ul>	<ul style="list-style-type: none"> <li>• Select appropriate ingredients and use a wide range of techniques</li> </ul>	<ul style="list-style-type: none"> <li>• Understand how food is processed into ingredients that can be eaten or used in cooking.</li> <li>• Know different food and drink contain different</li> </ul>	<ul style="list-style-type: none"> <li>• Use information on food labels to inform choices.</li> </ul>



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	<ul style="list-style-type: none"> <li>• Use a wider variety of ingredients and techniques to prepare and combine ingredients safely and hygienically.</li> <li>• Begin to understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.</li> <li>• Start to understand that a healthy diet is made up from a variety and balance of different food and drink.</li> </ul>	<p><i>food group.</i></p> <ul style="list-style-type: none"> <li>• <i>Demonstrate hygienic food preparation and storage.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Know how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.</li> <li>• Understand what makes a healthy and balanced diet, and that different foods and drinks provide different substances the body needs to be healthy.</li> <li>• Read and follow recipes.</li> </ul>	<p><i>and techniques.</i></p> <ul style="list-style-type: none"> <li>• <i>Begin to understand that seasons may affect the food available.</i></li> </ul>	<p>including, where appropriate, the use of a heat source.</p> <ul style="list-style-type: none"> <li>• Understand the main food groups and the different nutrients that are important for health.</li> <li>• Understand how a variety of ingredients are grown, reared, caught and processed to make them safe and palatable/tasty.</li> <li>• Combine different ingredients.</li> <li>• Apply the rules for basic food hygiene and other safe practices e.g. hazards relating to the use of ovens.</li> </ul>	<p><i>to combine them.</i></p>	<p>substances – nutrients, water and fibre – that are needed for health.</p> <ul style="list-style-type: none"> <li>• Plan a series of healthy meals based on the principles of a healthy and varied diet.</li> <li>• Research, plan, prepare and cook a savoury dish, applying their knowledge of ingredients and their technical skills.</li> </ul>	
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