



Progression map

Design Technology- progression map

<u>Year group</u>	<u>Design</u>	<u>Make</u>	<u>Evaluate</u>	<u>Mechanics and construction</u>	<u>Textiles</u>	<u>Cooking and nutrition</u>
EYFS	<p>F1 – Develop their own ideas and then decide which materials to use to express them. Create closed shapes with continuous lines, and begin to use these shapes to represent objects. Explore how things work.</p> <p>F2- Explore, use and refine a variety of artistic effects to express their ideas and feelings. Return to and build on their previous learning, refining ideas and developing their ability to represent them. Develop their small motor skills so that they can use a range of tools competently, safely and confidently. Create collaboratively, sharing ideas, resources and skills.</p>			<p>Make imaginative and complex ‘small worlds’ with blocks and construction kits, such as a city with different buildings and a park.</p>	<p>Explore different materials freely, in order to develop their ideas about how to use them and what to make.</p>	<p>Tear food to divide it and peel fruit using their hands.</p> <p>Recognise some familiar ingredients (Name of fruits</p>
ELG	<p>Use a range of small tools, including scissors, paintbrushes and cutlery. Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. Share their creations, explaining the process they have used.</p>					
Year 1	<p>Design purposeful, functional, appealing products for themselves</p> <p>Generate, develop, model and communicate their ideas through talking, drawing, words and where appropriate, information and</p>	<p>Use tools and equipment to perform practical tasks</p> <p>Explain what tools they are using</p> <p>Use a wide range of materials and components, including construction materials, textiles and ingredients,</p>	<p>Explore a range of existing products</p> <p>Describe how something works</p> <p>Talk about their own work and things that other people have done</p>	<p>Talk with others about how they want to construct their product</p> <p>Select appropriate resources and tools for their building projects</p> <p>Make simple plans before making objects,</p>		<p>Year 1</p> <p>Cut food safely</p> <p>Describe the texture of foods</p> <p>Wash their hands and make sure that surfaces are clean</p>



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	<p>communication technology</p> <p>Explain what they want to do</p>	<p>according to their characteristics</p> <p>Explain what they are making</p>		<p>e.g. drawings, arranging pieces of construction before building</p> <p>Add some kind of design to their product</p> <p>Make sensible choices as to which material to use for their constructions</p> <p>Consider how to improve their construction</p>		<p>Think of interesting ways of decorating food they have made e.g. healthy pizza</p> <p>Use the basic principles of a healthy diet to prepare dishes</p> <p>Understand where food comes from.</p> <p>Follow simple recipes either in simple sentences or using pictures.</p> <p>understand that all food comes from plants or animals;</p> <p>understand that food has to be farmed, grown elsewhere (e.g. home) or caught;</p> <p>name and sort foods into the five groups in the Eatwell Guide;</p> <p>understand that everyone should eat at least five portions of fruit and vegetables</p>
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						<p>every day and start to explain why;</p> <p>begin to select from a range of hand tools and equipment, such as scissors, graters, zesters, safe knives, juicer;</p> <p>learn to use hand tools and kitchen equipment safely and appropriately and learn to follow hygiene procedures;</p> <p>cut, peel and grate ingredients, including measuring and weighing ingredients using measuring cups;</p>
Year 2	<p>Think of ideas and plan what to do next</p> <p>Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose</p> <p>☑Generate, develop, model and communicate their ideas through</p>	<p>Use a wider range of tools and equipment to perform practical tasks</p> <p>Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities</p>	<p>Analyse a range of existing products</p> <p>☑ Evaluate their ideas and products against their own design criteria</p> <p>☑ Explain what went well with their work</p> <p>☑ If they did it again, explain what they would improve</p>	<p>Explore and use mechanisms in their products.</p> <p>Make a product which moves</p> <p>Build structures, exploring how they can be made stronger, stiffer and more stable.</p> <p>Explain why they have chosen moving parts</p>	<p>Cut materials using scissors</p> <p>Describe the materials using different words</p> <p>Begin to understand the process of weaving using paper.</p> <p>Explain how to thread a needle and have a go.</p>	



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	discussion, diagrams, models and words	Give a reason for their choice of tool ☐ Join materials in different ways		Develop their own ideas from initial starting points. Incorporate some type of movement into models Explore and use mechanisms in their products. Join materials together as part of a moving product	Cut out a simple template shape from felt. Decorating with beads, sequins, braids or ribbons. Gain confidence in threading a needle.	
End of KS1	design purposeful, functional, appealing products for themselves and other users based on design criteria generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology	select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics	explore and evaluate a range of existing products evaluate their ideas and products against design criteria	build structures, exploring how they can be made stronger, stiffer and more stable explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.		use the basic principles of a healthy and varied diet to prepare dishes; understand where food comes from.
Year 3	Show that their design meets a range of requirements ☐	Use a wider range of tools and equipment to perform practical tasks	Analyse a range of existing products		Use simple patterns as a template, to cut different fabrics.	Year 3 use a range of techniques such as



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	<p>Put together a step by step plan which shows the order and also what equipment and tools they need</p> <p>☑ Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose</p> <p>☑ Generate, develop, model and communicate their ideas through discussion and annotated sketches and words</p> <p>☑ Make a realistic plan</p>	<p>☑ Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities</p> <p>☑ Use equipment and tools accurately</p>	<p>Evaluate their ideas and products against their own design criteria</p> <p>Explain what went well with their work</p> <p>Explain what they changed which made their design even better</p>		<p>Confidently thread a needle using larger eye</p> <p>Join fabrics using running stitch, over sewing</p> <p>Adding applique decorations using running stitch.</p> <p>Use weaving with threads to knot, plait and twist. Draw own pattern and cut in a range of fabrics.</p> <p>Confidently thread a needle using a smaller eye.</p> <p>Join fabrics using over sewing, backstitch and blanket stitch</p> <p>Adding applique decorations using over sewing and running stitch.</p> <p>Using weaving as a technique as a basis to stitch embroidery</p>	<p>mashing, whisking, crushing, grating, cutting, kneading and baking;</p> <p>Science link - explain that a healthy diet is made up of a variety and balance of different food and drink, as represented in the Eatwell Guide and be able to apply these principles when planning and cooking dishes;</p> <p>Science link - understand that to be active and healthy, nutritious food and drink are needed to provide energy for the body; prepare ingredients using appropriate cooking utensils</p> <p>measure and weigh ingredients to the nearest gram</p>
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<p>Year 4</p>	<p>Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose</p> <p>☑Generate, develop, model and communicate their ideas through discussion, annotated sketches and cross-sectional / exploded diagrams</p> <p>☑Take account of the ideas of others when designing</p> <p>☑Produce a plan and explain it to others</p>	<p>Select from and use a wider range of tools and equipment to perform practical tasks</p> <p>☑Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities</p> <p>☑Think of at least one idea about how to create their product</p>	<p>Investigate and analyse a range of existing products</p> <p>☑Evaluate their ideas and products against their own design criteria</p> <p>☑Suggest some improvements and say what was good and not so good about the original design.</p> <p>☑Consider the views of others</p>	<p>with growing confidence, carefully select from a range of tools and equipment, explaining their choices;</p> <p>select from a range of materials and components according to their functional properties and aesthetic qualities;</p> <p>place the main stages of making in a systematic order;</p> <p>Practical skills and techniques</p> <p>learn to use a range of tools and equipment safely, appropriately and accurately and learn to follow hygiene procedures;</p> <p>use a wider range of materials and components, including construction materials and kits, textiles and mechanical and electrical components;</p> <p>with growing independence, measure</p>		<p>prepare ingredients using appropriate cooking utensils</p> <p>measure and weigh ingredients to the nearest gram</p> <p>start to know when, where and how food is grown (such as herbs, tomatoes and strawberries) in the UK, Europe and the wider world;</p> <p>understand how to prepare and cook a variety of predominantly savoury dishes safely and hygienically;</p> <p>with support, use a heat source to cook ingredients showing awareness of the need to control the temperature of the hob and/or oven;</p> <p>start to independently follow a recipe</p>
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				<p>and mark out to the nearest cm and millimetre;</p> <p>cut, shape and score materials with some degree of accuracy;</p> <p>assemble, join and combine material and components with some degree of accuracy;</p>		
Year 5	<p>Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals</p> <p>☑Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional / exploded diagrams including prototypes</p> <p>Take a user's view into account when designing</p> <p>☑Produce a detailed step-by-step plan</p>	<p>Select from and use a wider range of tools and equipment to perform practical tasks accurately</p> <p>☑Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities</p> <p>☑Explain why their finished product will be of good quality during the making process</p> <p>☑Persevere through different stages of the making process</p>	<p>Investigate and analyse a range of existing products</p> <p>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</p> <p>Explain how their product will appeal to the audience</p>	<p>With growing confidence cut and join with accuracy to ensure a good-quality finish to the product.</p> <p>Demonstrate how mechanical systems such as cams or pulleys or gears create movement.</p> <p>Use finishing techniques to strengthen and improve the appearance of their product using a range of equipment</p> <p>Assemble components to make working models.</p>	<p>Decide on pattern layout and cut using a range of fabrics.</p> <p>Select some needles to match the thread.</p> <p>Joining buttons and loops using over sewing and backstitch.</p> <p>Adding applique decorations, beads, sequins using over sewing and backstitch.</p> <p>Decide and use complex pattern layouts and cut using a range of fabrics of their choice.</p> <p>Choose from a range of needles to match the</p>	



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		<p>☑Check that their design is the best it can be</p>		<p>Aim to make and to achieve a quality product.</p> <p>Construct products using permanent joining techniques.</p> <p>Explain how mechanical systems such as cams or pulleys or gears create movement.</p> <p>Evaluate and make modifications as they go along including using finishing techniques to ensure a high quality product.</p>	<p>appropriate thread for the material of choice.</p> <p>Joining a variety of fabrics using a range of stitches.</p> <p>Choose their own decorations and stitches to fit their purpose.</p>	
Year 6	<p>Use a range of research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular groups</p> <p>☑Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional / exploded</p>	<p>Select from and use a wider range of tools and equipment to perform practical tasks accurately</p> <p>☑Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities</p>	<p>Investigate and analyse a range of existing products</p> <p>☑Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p> <p>Say if their product meets all design criteria</p> <p>☑Explain how their product will appeal to</p>	<p>Understand that mechanical and electrical systems have an input, process and output.</p>		<p>measure and weigh ingredients to the nearest gram and millilitre;</p> <p>understand about seasonality, how this may affect the food availability and plan recipes according to seasonality;</p> <p>understand that food is processed into ingredients</p>



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	<p>diagrams, prototypes and pattern pieces</p> <p>Take a user's view into account when designing ☑</p> <p>Use market research to inform plans</p> <p>Produce a detailed step-by-step plan.</p> <p>Follow and refine plans if necessary</p> <p>Justify their plan to someone else ☑</p> <p>Suggest some alternative plans and say what the good and drawbacks are about each</p> <p>☑Consider culture and society in their designs</p>	<p>Use tools and materials precisely</p> <p>Explain why their finished product will be of good quality during the making process</p> <p>Persevere through different stages of the making process</p> <p>Check that their design is the best it can be</p> <p>Change the way that they are working if needed</p>	<p>the audience. Is it fit for purpose? What would improve it? Would different resources have improved their product? Did they consider the use of the product when selecting materials?</p> <p>Understand how key individuals in design and technology have helped shape the world</p>			<p>that can be eaten or used in cooking;</p> <p>demonstrate how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source;</p> <p>demonstrate how to use a range of cooking techniques, such as griddling, grilling, frying and boiling;</p> <p>explain that foods contain different substances, such as protein, that are needed for health and be able to apply these principles when planning and preparing dishes;</p> <p>adapt and refine recipes by adding or substituting one or more ingredients to</p>
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						<p>change the appearance, taste, texture and aroma;</p> <p>alter methods, cooking times and/or temperatures;</p> <p>measure accurately and calculate ratios of ingredients to scale up or down from a recipe;</p> <p>independently follow a recipe</p>
<u>End of KS2</u>	<p>use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups</p> <p>generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</p>	<p>select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</p> <p>select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities</p>	<p>investigate and analyse a range of existing products</p> <p>evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</p> <p>understand how key events and individuals in design and technology have helped shape the world</p>	<p>apply their understanding of how to strengthen, stiffen and reinforce more complex structures</p> <p>understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</p> <p>understand and use electrical systems in their products [for example, series circuits incorporating switches,</p>		<p>understand and apply the principles of a healthy and varied diet</p> <p>prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</p> <p>understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</p>



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				bulbs, buzzers and motors] apply their understanding of computing to program, monitor and control their products.		
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