



Design Technology Progression Map 2025

Progression of skills and knowledge						
	3-4 years		Children in Reception		Early Learning Goals	
EYFS Food	<ul style="list-style-type: none"> To tell adults when hungry or tired or when they want to rest or play. To usually manage washing and drying hands. Select and use activities and resources, with help when needed. This helps them to achieve a goal they have chosen or one which is suggested to them. 		<ul style="list-style-type: none"> To eat a healthy range of foodstuffs and understand need for variety in food. To show some understanding that good practices with regard to exercise, eating, sleeping and hygiene can contribute to good health. Progress towards a more fluent style of moving, with developing control and grace. Develop their small motor skills so that they can use a range of tools competently, safely and confidently. Use their core muscle strength to achieve a good posture when sitting at a table or sitting on the floor. 		<ul style="list-style-type: none"> To know the importance for good health of physical exercise, and a healthy diet, and talk about ways to keep healthy and safe. To manage their own basic hygiene and personal needs successfully, including dressing and going to the toilet independently. Use a range of small tools, including scissors, paintbrushes and cutlery. 	
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Food	Preparing Fruit & Vegetables: Smoothies <ul style="list-style-type: none"> Designing smoothie carton packaging by hand. Chopping fruit and vegetables safely to make a smoothie. Juicing fruits to make a smoothie. Identifying if a food is a fruit. Learning where and how fruits and vegetables grow. Tasting and evaluating different foods. Describing appearance, smell and taste. Suggesting information to be included on packaging. 	Balanced Diet <ul style="list-style-type: none"> Chopping foods safely to make a wrap. Grating foods to make a wrap. Snipping smaller foods instead of cutting. Spreading soft foods to make a wrap. Identifying the five food groups. Learning about a balanced diet. Tasting and evaluating different food combinations. Describing appearance, smell and taste. 	Eating Seasonally: Vegetable soup <ul style="list-style-type: none"> Describing how climate affects where foods grow. Identifying seasonal ingredients from the UK. Tasting seasonal ingredients. Describing the texture and flavour of ingredients. Peeling foods by hand or with a peeler. Cutting ingredients safely. Choosing ingredients based on a design brief. Following the instructions within a recipe. 	Adapting a Recipe <ul style="list-style-type: none"> Evaluating and comparing a range of products. Following a baking recipe. Understanding safety and hygiene rules. Identifying a target audience. Designing a biscuit within a given budget. Suggesting modifications. Adapting a recipe. Conducting market research. 	Developing a Recipe <ul style="list-style-type: none"> Explaining the farm-to-fork process. Researching existing recipes. Suggesting alternative ingredients. Analysing nutritional content. Writing an alternative recipe. Understanding cross-contamination. Using preparation skills. Designing a jar label. 	Celebrating culture & Seasonality: Mayan food <ul style="list-style-type: none"> Understand how food is caught, reared and grown to make it palatable and safe to eat. Select appropriate ingredient and use a wide range of techniques to combine them. Children carry out sensory evaluations of a variety of existing food products and ingredients relating to the project. The ingredients could include those that could be added to a basic recipe such as herbs, spices, vegetables or cheese. Measure accurately and calculate ratios of ingredients to scale up or down from a recipe. Demonstrate how to measure out, cut, shape and combine e.g. knead, beat, rub and mix ingredients

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EYFS Mechanisms	<ul style="list-style-type: none"> To use one-handed tools and equipment, e.g. make snips in paper with child scissors. To understand that equipment and tools have to be used safely. To show an interest in technological tools with knobs or pulleys, or real objects. To show skill in making toys work by pressing parts or lifting flaps to achieve effects, such as new images. To talk about why things happen and how things work. Explore how things work. 		<ul style="list-style-type: none"> To use simple tools to affect changes to materials. To handle tools, objects, construction & malleable materials safely and with increasing control. To understand the need for safety when tackling new challenges and consider and manage some risks. To show understanding of how to transport and store equipment safely. To practise some appropriate safety measures without direct supervision. 		<ul style="list-style-type: none"> To handle equipment and tools effectively, including pencils for writing. To safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. 	
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Mechanisms & Mechanical Systems	Slides & Levers: Moving story book <ul style="list-style-type: none"> Explaining how to adapt mechanisms, using bridges or guides to control the movement. Designing a moving storybook for a given audience. Following a design to create moving models that use levers and sliders. 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 its intended audience. 	Wheels & Axles <ul style="list-style-type: none"> Designing a vehicle that includes wheels, axles and axle holders, which will allow the wheels to move. Creating clearly labelled drawings that illustrate movement. Adapting mechanisms. Testing mechanisms, identifying what stops wheels from turning, knowing that a wheel needs an axle in order to move. 	Pneumatic toys <ul style="list-style-type: none"> Designing a toy that uses a pneumatic system. Developing design criteria from a design brief. Generating ideas using thumbnail sketches and exploded diagrams. Learning that different types of drawings are used in design to explain ideas clearly. Creating a pneumatic system to create a desired motion. Building secure housing for a pneumatic system. Using syringes and balloons to create different types of pneumatic systems to make a functional and appealing pneumatic toy. Selecting materials due to their functional and aesthetic characteristics. 		Pop Up Book <ul style="list-style-type: none"> Designing a pop-up book which uses a mixture of structures and mechanisms. Naming each mechanism, input and output accurately. Storyboarding ideas for a book. Following a design brief to make a pop-up book, neatly and with focus on accuracy. Making mechanisms and/or structures using sliders, pivots and folds to produce movement. Using layers and spacers to hide the workings of mechanical parts for an aesthetically pleasing result. Evaluating the work of others and receiving feedback on own work. Suggesting points for improvement. 	

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EYFS Structures	<ul style="list-style-type: none"> To use one-handed tools and equipment, e.g. make snips in paper with child scissors. To understand that equipment and tools have to be used safely. To show awareness of similarities of shapes in the environment. To use positional language. To show interest in shape by sustained construction activity or by talking about shapes or arrangements. To use various construction materials. To begin to construct, stacking blocks vertically and horizontally, making enclosures, and creating spaces. To join construction pieces together to build and balance. To realise tools can be used for a purpose. Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park. Explore different materials freely, in order to develop their ideas about how to use them and what to make. 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. 		<ul style="list-style-type: none"> To use simple tools to affect changes to materials. To handle tools, objects, construction & malleable materials safely and with increasing control. To understand the need for safety when tackling new challenges and consider and manage some risks. To show understanding of how to transport and store equipment safely. To practise some appropriate safety measures without direct supervision. To use familiar objects and common shapes to create and recreate patterns and build models. To construct with a purpose in mind, using a variety of resources. To use simple tools and techniques competently and appropriately. To select appropriate resources and adapt work where necessary. To select tools and techniques needed to shape, assemble and join materials they are using. 		<ul style="list-style-type: none"> To handle equipment and tools effectively, including pencils for writing. To safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. To recognise, create and describe patterns. To explore characteristics of everyday objects and shapes and use mathematical language to describe them. 	
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Structures	Freestanding Structures: Constructing a Windmill		Shell Structures (incl. CAD): Chocolate box packaging			Frame structures: Picture frame
	<ul style="list-style-type: none"> Finding the middle of an object. Puncturing holes. Adding weight to a structure. Creating supporting structures. Cutting evenly and carefully. Evaluating and improving a product. 		<ul style="list-style-type: none"> Use knowledge of existing products to design a functional product. Create a design using an annotated sketch and cross-sectional diagrams. Safely measure (to the nearest millimetre), mark, cut and construct with accuracy. Strengthen frames using diagonal struts, lamination, corrugation or ribbing. 			<ul style="list-style-type: none"> Use research into famous designers to inform their work. Develop their ideas through exploded and annotated diagrams. Make careful measurements. Consider ways of strengthening an existing product. Talk about their design and how their structure has been developed.

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EYFS Textiles	<ul style="list-style-type: none"> To use one-handed tools and equipment, e.g. make snips in paper with child scissors. To understand that equipment and tools have to be used safely. To begin to be interested in and describe the texture of things. To capture experiences and responses with a range of media, such as music, dance and paint and other materials or words. Use large-muscle movements to wave flags and streamers, paint and make marks. Choose the right resources to carry out their own plan. Use one-handed tools and equipment, for example, making snips in paper with scissors. 		<ul style="list-style-type: none"> To use simple tools to affect changes to materials. To handle tools, objects, construction & malleable materials safely and with increasing control. To understand the need for safety when tackling new challenges and consider and manage some risks. To show understanding of how to transport and store equipment safely. To practise some appropriate safety measures without direct supervision. To experiment to create different textures. To understand that different media can be combined to create new effects. To manipulate materials to achieve a planned effect. 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. Create collaboratively, sharing ideas, resources and skills. 		<ul style="list-style-type: none"> To handle equipment and tools effectively, including pencils for writing. To safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. To recognise, create and describe patterns. To represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role-play and stories. Share their creations, explaining the process they have used. 	
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Textiles		Templates & Joining Techniques: Making puppets		Cross stitch & Appliqué: Fastenings		Combining different fabric shapes (incl. CAD): Make Do & Mend bags
		<ul style="list-style-type: none"> Using a template to create a design for a puppet. Cutting fabric neatly with scissors. Using joining methods to decorate a puppet. Sequencing steps for construction. Reflecting on a finished product, explaining likes and dislikes. 		<ul style="list-style-type: none"> Writing design criteria for a product, articulating decisions made. Designing a personalised book sleeve. Making and testing a paper template with accuracy and in keeping with the design criteria. Measuring, marking and cutting fabric using a paper template. Selecting a stitch style to join fabric. Sewing neatly using small regular stitches. Incorporating a fastening to a design. Testing and evaluating an end product against the original design criteria. 		<ul style="list-style-type: none"> Developing annotated sketches to communicate design ideas. Creating pattern pieces to use in design. Using a ruler to accurately measure and draw lines and marks. Using nets to create 3D objects. Reflecting on the functionality and aesthetics of products. Discussing reasons for design choices. Using pins effectively to secure a template to fabric without creases or bulges. Threading needles independently.

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EYFS Electrical Systems	• N/A		• N/A		• N/A	
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Electrical Systems				Simple circuits & switches (incl. programming & control): Electrical poster	More complex switches & Circuits (incl. programming, monitoring & control): Fairground	
				<ul style="list-style-type: none"> Carrying out research based on a given topic (for example, The Romans) to develop a range of initial ideas. Generating a final design for the electric poster with consideration for the client's needs and design criteria. Planning the positioning of the bulb (circuit component) and its purpose. Mounting the poster onto corrugated card to improve its strength and withstand the weight of the circuit on the rear. Measuring and marking materials out using a template or ruler. Fitting an electrical component (bulb). Learning ways to give the final product a higher quality finish (e.g. framing to conceal a roughly cut edge). Learning to give and accept constructive criticism on their work and the work of others. 	<ul style="list-style-type: none"> Create series and parallel circuits. Create circuits using electronics kits that employ a number of components (such as LEDs, resistors, transistors and chips). Demonstrate the accurate use of tools and equipment. Communicate ideas through detailed, annotated drawings from different views and/or exploded diagrams. 	

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To take inspiration from design throughout history	<ul style="list-style-type: none"> Explore objects and designs to identify likes and dislikes of the designs. 	<ul style="list-style-type: none"> Explore how products have been created. Suggest improvements to existing designs. 	<ul style="list-style-type: none"> Identify some of the great designers in all of the areas of study (including pioneers in horticultural techniques) to generate ideas for designs. 	<ul style="list-style-type: none"> Disassemble products to understand how they work. Improve upon existing designs, giving reasons for choices. 	<ul style="list-style-type: none"> Combine elements of design from a range of inspirational designers throughout history, giving reasons for choices. 	<ul style="list-style-type: none"> Evaluate the design of products so as to suggest improvements to the user experience. Create innovative designs that improve upon existing products.