



Design Technology Progression Map

Progression of skills and knowledge						
	3-4 years		Children in Reception		Early Learning Goals	
EYFS Food	- 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.		- 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.		- 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 - 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 - 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 - 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 - 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 - 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 - 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	- 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.		- 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 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 - 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 - 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 - 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 - 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	- 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.		- 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.		- 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
	- 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.		- 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.			- 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	- 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.		- 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.		- 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
		- 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.		- 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.		- 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.

	3-4 years		Children in Reception		Early Learning Goals	
EYFS Electrical Systems	• N/A		• N/A		• N/A	
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Electrical Systems				Simple circuits & switches (incl. programming & control): Electrical poster	More complex switches & Circuits (incl. programming, monitoring & control): Fairground	
				- 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.	- 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	Explore objects and designs to identify likes and dislikes of the designs.	- Explore how products have been created. - Suggest improvements to existing designs.	Identify some of the great designers in all of the areas of study (including pioneers in horticultural techniques) to generate ideas for designs.	- Disassemble products to understand how they work. - Improve upon existing designs, giving reasons for choices.	Combine elements of design from a range of inspirational designers throughout history, giving reasons for choices.	- Evaluate the design of products so as to suggest improvements to the user experience. - Create innovative designs that improve upon existing products.