

Whole school Curriculum Progression Map: DESIGN & TECHNOLOGY

	EYFS	KS1		KS2			
	Three and Four-Year-Olds Reception Early Learning Goals	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design: Everyday Products & Generation of Ideas	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. Choose the right resources to carry out their own plan. 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. 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. Return to and build on their previous learning, refining ideas and developing their ability to represent them. Create collaboratively, sharing ideas and resources and skills. Children safely use and explore a variety of materials, tools and techniques,	- 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		- 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 - Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design			
		All products are designed for a specific purpose. Design criteria are the explicit goals that a project must achieve. Create a design to meet simple design criteria.	Ideas can be communicated in a variety of ways, including written work, drawings and diagrams, modelling, speaking and using information and communication technology. Generate and communicate their ideas through a range of different methods.	Particular products have been designed for specific tasks. Design criteria are the exact goals a project must achieve to be successful. Develop design criteria to inform a design.	Design features are the aspects of a product's design that the designer would like to emphasise, such as the use of a particular material or feature that makes the product easier to use or more durable. Use annotated sketches and exploded diagrams to test and communicate their ideas.	Explain how the design of a product has been influenced by the culture or society in which it was designed or made. Use pattern pieces and computer-aided design packages to design a product.	Analyse how an invention or product has significantly changed or improved people's lives. Develop design criteria for a functional and appealing product that is fit for purpose, communicating ideas clearly in a range of ways.

experimenting with colour, design, texture, form and function

Make: Investigation, Cutting & Joining Textiles, Materials for Purpose,

Use one-handed tools and equipment, for example, making snips in paper with scissors.
Explore how things work.
Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park.

Return to and build on their previous learning, refining ideas and developing their ability to represent them.

Create collaboratively, sharing ideas, resources and skills.

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.

-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

Select the appropriate tool for a simple practical task.

Select and use a range of materials, beginning to explain their choices.

Select the appropriate tool for a task and explain their choice.

Use different methods of joining fabrics, including glue and running stitch.

Choose appropriate components and materials and suggest ways of manipulating them to achieve the desired effect.

Add simple decorative embellishments, such as buttons, prints, sequins and appliqué.

-Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
-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

Use tools safely for cutting and joining materials and components.

Plan which materials will be needed for a task and explain why

Select, name and use tools with adult supervision.

Hand sew a hem or seam using a running stitch.

Choose from a range of materials, showing an understanding of their different characteristics.

Create detailed decorative patterns on fabric using printing techniques.

Name and select increasingly appropriate tools for a task and use them safely.

Select and combine materials with precision.

Select appropriate tools for a task and use them safely and precisely.

Pin and tack fabrics in preparation for sewing and more complex pattern work.

Choose the best materials for a task, showing an understanding of their working characteristics.

Use different methods of fastening for function and decoration.

Evaluate

Explore different materials freely, to develop their ideas about how to use them and what to make.

Ask questions to find out more and to check they understand what has been said

-Explore and evaluate a range of existing products
-Evaluate their ideas and products against design criteria

-Investigate and analyse a range of existing products
-Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
-Understand how key events and individuals in design and technology have helped shape the world

to them.

Share their creations, explaining the process they have used.

Listen attentively and respond to what they hear with relevant questions, comments and actions when being read to and during whole class discussions and small group interactions.

Make comments about what they have heard and ask questions to clarify their understanding. Hold conversation when engaged in back-and-forth exchanges with their teacher and peers.

Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary.

Talk about their own and each other's work, identifying strengths or weaknesses and offering support.	Finished products can be compared with design criteria to see how closely they match. Explain how closely their finished products meet their design criteria and say what they could do better in the future.	Asking questions can help others to evaluate their products Suggest improvements to their products and describe how to implement them, beginning to take the views of others into account.	Asking questions can help others to evaluate their products, such as asking them whether the selected materials achieved the purpose of the model. Suggest improvements to their products and describe how to implement them, beginning to take the views of others into account.	Testing a product against the design criteria will highlight anything that needs improvement or redesign. Test and evaluate products against a detailed design specification and make adaptations as they develop the product.	Evaluating a product while it's being manufactured, and explaining these evaluations to others, can help to refine it. Demonstrate modifications made to a product as a result of ongoing evaluation by themselves and to others.
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Choose the right resources to carry out their own plan.

Use one-handed tools and equipment, for example, making snips in paper with scissors.

-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.	-Apply their understanding of how to strengthen, stiffen and reinforce more complex structures - Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] -Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] -Apply their understanding of computing to program, monitor and control their products.
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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 a range of small tools, including scissors, paintbrushes and cutlery.

Construct simple structures, models or other products using a range of materials. Use wheels and axles to make a simple moving model.	Explore how a structure can be made stronger, stiffer and more stable.	Create shell or frame structures using diagonal struts to strengthen them. Explore and use a range of mechanisms (levers, sliders, axles, wheels and cams) in models or products.	Using shell and frame structures, show awareness of how to strengthen, stiffen and reinforce them. Explore and use a range of mechanisms (levers, axles, cams, gears and pulleys) in models or products.	Build a framework using a range of materials to support mechanisms. Use mechanical systems in their products, such as pneumatics. Use electrical circuits of increasing complexity in their models or products, showing an understanding of control. Link a physical device to a computer or tablet so that it can be controlled (such as changing motor speed or turning an LED on and off) by a program.	Explain and use mechanical systems in their products to meet a design brief. Explain and use mechanical systems in their products to meet a design brief. Understand and use electrical circuits that incorporate a variety of components (switches, lamps, buzzers and motors) and use programming to control their products. Use a sensor to monitor an environmental variable, such as temperature, sound or light.
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Make healthy choices about food, drink, activity and toothbrushing.

Manage their own needs. - Personal hygiene

Know and talk about the different factors that support their overall health and wellbeing: - regular physical activity - healthy eating

Manage their own basic hygiene and personal needs, (including dressing, going to the toilet) and understanding the importance of healthy food choices.

-Use the basic principles of a healthy and varied diet to prepare dishes
-Understand where food comes from.

Select healthy ingredients for a fruit or vegetable salad.

Sort foods into groups by whether they are from an animal or plant source.

Prepare ingredients by peeling, grating, chopping, slicing, tearing, mashing.

Describe the types of food needed for a healthy and varied diet.

Apply the principles to make a simple, healthy meal.

Prepare ingredients by peeling, grating, chopping, slicing, tearing, mashing, measuring, mixing, spreading.

-Understand and apply the principles of a healthy and varied diet
-Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques
-Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

Identify and name foods that are produced in different places.

Preparation techniques for savoury dishes include peeling, chopping, deseeding, slicing, dicing, grating, mixing and skinning.

Prepare and cook a simple savoury dish.

Design a healthy snack or packed lunch and explain why it is healthy.

Identify and name foods that are produced in different places in the UK and beyond.

Cooking techniques include baking, boiling, frying, grilling and roasting.

Identify and use a range of cooking techniques to prepare a simple meal or snack.

Evaluate meals and consider if they contribute towards a balanced diet.

Describe what seasonality means and explain some of the reasons why it is beneficial.

Use an increasing range of preparation and cooking techniques to cook a sweet or savoury dish.

Plan a healthy daily diet, justifying why each meal contributes towards a balanced diet.

Explain how organic produce is grown.

Follow a recipe that requires a variety of techniques and source the necessary ingredients independently.