



Personal **R**esponsibility **I**n **D**elivering **E**xcellence

Design and Technology Progression Overview

Design and Technology Curriculum Coverage

		Nursery	Reception / F2	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6
Evaluate existing products	Statutory NC Content	<p>Expressive Arts ad Design: 3- and 4-Year-Olds: Explore different materials freely, 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.</p>		Explore and evaluate a range of existing products	Explore and evaluate a range of existing products	Understand how key events and individuals in design and technology have helped shape the world	Understand how key events and individuals in design and technology have helped shape the world	Understand how key events and individuals in design and technology have helped shape the world	Understand how key events and individuals in design and technology have helped shape the world
	Design	Statutory NC Content	<p>Expressive Arts ad Design: Birth to 3: Use their imagination as they consider what they can do with different materials.</p> <p>3- and 4-Year-Olds: Develop their own ideas and then decide which materials to use to express them.</p> <p>Explore different materials freely, in order to develop their ideas about how to use them and what to make.</p>	<p>Expressive Arts ad Design: Reception: Explore, use, and refine a variety of artistic effects to express their ideas and feelings.</p> <p>Return to and build on their previous learning, refining ideas and developing their ability to represent them.</p> <p>Create collaboratively, sharing ideas, resources, and skills.</p> <p>Creating with materials: ELG: Share their creations, explaining the process they have used.</p>	Design purposeful, functional, appealing products for themselves and other users based on design criteria.	Design purposeful, functional, appealing products for themselves and other users based on design criteria.	Use research to inform the design of innovative, functional, appealing products that are fit for purpose.	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.	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.

Make	Statutory NC Content	<p>Personal, Social and Emotional Development: 3- and 4-Year-Olds: Select and use activities and resources, with help when needed.</p> <p>Understanding the World: Birth to 3: Explore materials with different properties.</p> <p>3- and 4-Year-Olds: Explore collections of materials with similar and/or different properties. Explore how things work.</p> <p>Physical Development: Birth to 3: Develop manipulation and control. Explore different materials and tools.</p> <p>3- and 4-Year-Olds: Use large-muscle movements to ...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.</p> <p>Expressive Arts ad Design: Birth to 3: Explore paint.... using brushes and other tools Explore different materials, using all their senses to investigate them. Manipulate and play with different materials. Make simple models which express their ideas.</p> <p>3- and 4-Year-Olds: Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park.</p> <p>Physical Development: 3- and 4-Year-Olds: Choose the right resources to carry out their own plan.</p>	<p>Physical Development: Reception aged children: Progress towards a more fluent style of moving, with developing control. 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.</p> <p>Fine Motor Skills: ELG: Use a range of small tools, including scissors, paintbrushes.</p> <p>Expressive Arts ad Design: Reception: Explore, use, and refine a variety of artistic effects to express their ideas and feelings. Create collaboratively, sharing ideas, resources, and skills.</p> <p>Creating with materials: ELG: Safely use and explore a variety of materials, tools, and techniques, experimenting with colour, design, texture, form, and function.</p>	<p>Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining]</p> <p>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.</p>	<p>Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining, and finishing]</p> <p>Select from and use a wide range of materials and components, including construction materials and ingredients, according to their characteristics.</p>	<p>Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining, and finishing]</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>Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining, and finishing]</p> <p>Select from and use a wider range of materials and components, including construction materials and ingredients, according to their functional properties and aesthetic qualities.</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 and ingredients, according to their functional properties and aesthetic qualities.</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>
Evaluate	Statutory NC Content		<p>Expressive Arts ad Design: Reception: Return to and build on their previous learning, refining ideas and developing their ability to represent them.</p> <p>Creating with materials: ELG: Share their creations, explaining the process they have used.</p>	<p>Evaluate their ideas and products against design criteria.</p>	<p>.Evaluate their ideas and products against design criteria.</p>	<p>Evaluate their ideas and products against their own design criteria.</p>	<p>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p>	<p>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p>	<p>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p>

Technical Knowledge	Statutory NC Content	<p>Understanding the World: Birth to 3: Explore materials with different properties.</p> <p>3- and 4-Year-Olds: Explore collections of materials with similar and/or different properties. Explore how things work.</p> <p>Physical Development: Birth to 3: Explore different materials and tools.</p> <p>Expressive Arts ad Design: 3- and 4-Year-Olds: 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, to develop their ideas about how to use them and what to make.</p>	<p>Expressive Arts ad Design: Reception: Return to and build on their previous learning, refining ideas and developing their ability to represent them.</p> <p>Creating with materials: ELG: Safely use and explore a variety of materials, tools, and techniques, experimenting with colour, design, texture, form, and function.</p>	<p>Build structures, exploring how they can be made stronger, stiffer, and more stable.</p> <p>Explore and use mechanisms [for example, ([levers, sliders], in their products.</p>	<p>Build structures, exploring how they can be made stronger, stiffer, and more stable.</p> <p>Explore and use mechanisms [for example, wheels, and axles], in their products.</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 [pulleys]</p>	<p>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.</p> <p>Understand and use electrical systems in their products [more complex series circuits incorporating switches and motors]</p> <p>Apply their understanding of computing to program, monitor and control their products.</p>	<p>Understand and use mechanical systems in their products (levers and linkages)</p> <p>Apply their understanding of computing to program, monitor and control their products.</p>	<p>Apply their understanding of computing to program, monitor and control their products.</p> <p>Understand and use electrical systems in their products (more complex series circuits incorporating switches, bulbs, buzzers, and motors)</p>

			Nursery	Reception / F2	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6
Structures	Skills Content	<i>Investigate & Evaluate Activities</i>	Widen the range of activities that children feel confident to take part in, outdoors and inside. Model inviting new activities that encourage children to come over and join in, such as folding paper to make animals.	Help children to develop problem-solving skills by talking through how they, you and others resolved a problem or difficulty. Show that mistakes are an important part of learning and going back is trial and error not failure	The 3 Little Pigs House: Investigate existing products. Explain what/who they are for, how they work and what materials have been used.			No more broken biscuits: Investigate existing products and explain how they contain, protect, preserves, presents food.		
		<i>Focused Task</i>	Provide blocks and boxes to play freely with and build with, indoors and outside.		Explore joining in different ways (glue, sticky tape, flanges). Explore how to make a structure stronger/more stable			Explore pre-drawn nets. Score, cut and assemble pre-drawn nets. Explore using tabs to join a 3D model (net.)		
		<i>Designing & Making</i>	Provide lots of different things for young children to grasp, hold and explore, like clay, finger paint, spoons, brushes, shells Begin by showing children how to use onehanded tools (scissors and hammers, for example) and then guide them with hand-over-hand help. Gradually reduce the help you are giving and allow the child to use the tool independently	Offer children activities to develop and further refine their small motor skills. Suggestions: <ul style="list-style-type: none"> • threading and sewing, • woodwork, • pouring, • stirring, making models with junk materials, construction kits and malleable materials like clay. Use glue and masking tape for sticking pieces of scrap materials onto old cardboard boxes, hammers and nails, glue guns, paperclips and fasteners	Use given design criteria to design a product. Draw, label and talk about their design. Select from a range of tools and equipment to perform a practical task. Make their design using appropriate techniques to join.			Create their own design criteria. Use annotated sketches and prototypes to develop model and communicate their ideas. Measure carefully to not make mistakes. Cut, shape and join accurately.		
	<i>Evaluating</i>		Build upon their incidental talk: "Your tower is definitely the tallest I've seen all week. Do you think you'll make it any higher?" Suggestion: ask open questions - "How did you make that? Why does the wheel move so easily? What will happen if you do that?"	Discuss what they like and dislike about their product and if their design met the criteria.			Evaluate their own and others work in a positive way.			

			Nursery	Reception / F2	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6
Textiles	Skills Content	Investigate & Evaluate Activities	Widen the range of activities that children feel confident to take part in, outdoors and inside.	Help children to develop problem-solving skills by talking through how they, you and others resolved a problem or difficulty. Show that mistakes are an important part of learning and going back is trial and error not failure		Plaster pouch: Investigate existing products discussing the colours, size/shape, who are they for. Discuss what is the same /different about them? What do they contain?	Bendy bag: Investigate and analyse how products work and meet their purpose. Disassemble a product to see how it works			Our changing World: Investigate and analyse: -how much products cost to make -how innovative products are -how sustainable the materials in products are
		Focused Task				Teach running stitch Join in different ways staple, glue, sew Teach different ways to fasten- Velcro and press stud	Teach running stitch, back stitch and blanket stitch to test which is the strongest and most appropriate Cut with accuracy			Teach running stitch, back stitch and blanket stitch and sewing a button on. Explore using stitches for decoration. Using a paper pattern and marking out pieces.
		Designing & Making	Talk about and identify the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like 'pointy', 'spotty', 'blobs' etc.	Offer children activities to develop and further refine their small motor skills. • threading and sewing, Continue, copy and create repeating patterns.		Use given criteria and own experiences to design a product Draw and label their design and list equipment/materials needed Use a template Select from a range of tools and materials Use correct vocabulary to name and describe them Use simple finishing techniques	Create a design criteria Use annotated sketches to develop model and communicate their ideas Measure, pin or tape fabric to join with some accuracy. Use a range of finishing techniques. Measure with some accuracy to make cuts and holes			Carry out research, using surveys, interviews, questionnaires and web-based resources Identify the needs, wants, preferences and values of particular individuals and groups Develop a simple design specification to guide their thinking Generate innovative ideas, drawing on research
		Evaluating		Build upon their incidental talk: "Your tower is definitely the tallest I've seen all week. Do you think you'll make it any higher?" Suggestion: ask open questions - "How did you make that? Why does the wheel move so easily? What will happen if you do that?"		Evaluate their work against the given criteria – does it work how they planned Evaluate their products identifying strengths and possible changes they might make next time	Evaluate their work against the criteria during and at the end of the assignment, considering both appearance and the way it works. Discuss how to make and suggest improvements to the final product with reasons.			Evaluate their ideas and products against their original design specification Critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make – using the star method.

			Nursery	Reception / F2	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6
Mechanisms	Skills Content	Investigate & Evaluate Activities	Widen the range of activities that children feel confident to take part in, outdoors and inside. Model inviting new activities that encourage children to come over and join in, such as folding paper to make animals.	Help children to develop problem-solving skills by talking through how they, you and others resolved a problem or difficulty. Show that mistakes are an important part of learning and going back is trial and error not failure	Magnificent me: Investigate existing products. Explain what/who they are for, how they work and what materials have been used.	Let's get growing: Investigate existing products discussing the materials they are made from, size/shape, who are they for. Discuss what is the same /different about them?	Hunter Gatherers: Investigate and analyse how a product works / meets its purpose			Egyptians: Evaluate how the key designs of individuals in design and technology have helped shape the world.
		Focussed Task		Offer children activities to develop and further refine their small motor skills. Suggestions: making models with junk materials, construction kits and malleable materials like clay.	Explore how to make slider Explore how to make a lever	Explore different ways to join to create moving wheels and axles. Safely using saw and bench hook to cut doweling	Explore how to make levers and linkages			Explore pulleys and gears Explore strengthening of a pulley framework (jinks corners) Accurate measuring
		Designing & Making	Provide mechanical equipment for children to play with and investigate. Suggestions: o wind-up toys o pulleys o sets of cogs with pegs and boards	Suggestions: glue and masking tape for sticking pieces of scrap materials onto old cardboard boxes, hammers and nails, glue guns, paperclips and fasteners	Use given design criteria to design a product. Draw, label and talk about their design. Select from a range of tools and equipment to perform a practical task. Create and use levers or sliders to create movement	Use given criteria and own experiences to design a product Draw and label their design and list equipment/materials needed Select from a range of tools and materials Use correct vocabulary to name and describe them Create and use wheels and axles to create movement Measure by comparison (e.g. is this dowel longer than my box?)	Create their own design criteria to design a product Use annotated sketches and prototypes to develop model and communicate their ideas Create and use levers and linkages to create movement.			Research through asking questions and investigations to create their own design criteria to design a product. Show consideration to culture and society in a design. Use annotated diagrams and prototypes to produce a final design stating the materials used and why and the methods of making to be used. Convincingly justify their plan to someone else Confidently select appropriate tools, materials, components and techniques and use them. Use tools safely and accurately. Assemble components to make working models. Demonstrate when making modifications as they go along. Use finishing techniques to strengthen and improve the appearance of their product

		<i>Evaluating</i>		<p>Build upon their incidental talk: "Your tower is definitely the tallest I've seen all week. Do you think you'll make it any higher?"</p> <p>Suggestion: ask open questions - "How did you make that? Why does the wheel move so easily? What will happen if you do that?"</p>	<p>Discuss what they like and dislike about their product and if their design met the criteria.</p>	<p>Evaluate their work against the given criteria – does it work how they planned</p> <p>Evaluate their products identifying strengths and possible changes they might make next time</p>	<p>Evaluate their work against the criteria during and at the end of the assignment, considering both appearance and the way it works.</p> <p>Discuss how Make and suggest improvements to the final product with reasons.</p>			<p>Evaluate a product against the original design specification and by carrying out tests.</p> <p>Explain how they would improve their product.</p> <p>Seek evaluation from others.</p> <p>Record their evaluations and improvements using drawings with labels.</p>
--	--	-------------------	--	--	---	---	--	--	--	--

		Nursery	Reception / F2	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	
Electrical Systems	Skills Content	Investigate & Evaluate Activities	Widen the range of activities that children feel confident to take part in, outdoors and inside. Model inviting new activities that encourage children to come over and join in, such as folding paper to make animals.	Help children to develop problem-solving skills by talking through how they, you and others resolved a problem or difficulty. Show that mistakes are an important part of learning and going back is trial and error not failure				Alarm company: Investigate existing products. Discuss their purpose, function, suitability.	Moon buggy: Evaluate how the key designs of individuals in design and technology have helped shape the world.	Weather station: Evaluate how the key designs of individuals in design and technology have helped shape the world. Look at how electrical monitoring is used in real life.
		Focussed Task		Use tablets or computers Explore cause and effect using electrical items / flashing lights / sounds.				Explore making a basic electrical circuit Explore adding more components to their electrical circuit (buzzer, light, pressure switch.)	Explore how to code using the program Crumble Explore assembling pre-fabricated kits	How more complex electrical circuits and components can be used to create functional products How to program a computer to monitor changes in the environment and control their products
		Designing & Making						Create their own design criteria. Use annotated sketches and prototypes to develop model and communicate their ideas. Know how more complex electrical circuits and components can be used to create functional products and how to program a computer to control their products. Cut, shape and join accurately. Use a glue gun with close supervision (one to one)	Use flow charts to produce a program to control Select appropriate tools, materials, components and techniques and use them. Use tools safely and accurately. Assemble components to make working models/models	Use techniques that involve a number of steps Demonstrate resourcefulness when tackling practical problems Produce appropriate lists of tools, equipment and materials that they need
		Evaluating						Evaluate their own and others work in a positive way.	Evaluate by carrying out tests. Explain how they would improve their product. Begin to seek evaluation from others.	Evaluate their ideas and products against their original design specification

Food and Nutrition	Statutory NC Content		<p>Physical Development: Birth to 3: Explore different materials and tools.</p> <p>3- and 4-Year-Olds: Make healthy choices about food and drink.</p>	<p>Physical Development: Reception aged children: Develop their small motor skills so that they can use a range of tools competently, safely, and confidently.</p> <p>Use their core muscle strength to achieve a good posture when sitting at a table or sitting on the floor.</p> <p>Fine Motor Skills: ELG: Use a range of small tools, including cutlery.</p>	<p>Use the basic principles of a healthy and varied diet to prepare dishes.</p> <p>Understand where food comes from</p>	<p>Use the basic principles of a healthy and varied diet to prepare dishes.</p> <p>Understand where food comes from</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 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>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>	<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>
	Skills Content									
	Investigate & Evaluate Activities	<p>Draw attention to changes in amounts, for example, by adding more bricks to a tower, or eating things up</p>	<p>Help children to develop problem-solving skills by talking through how they, you and others resolved a problem or difficulty. Show that mistakes are an important part of learning and going back is trial and error not failure</p> <p>Narrate your own decisions about healthy foods, highlighting the importance of eating plenty of fruits and vegetables.</p>	<p>Charity- Helping hand: Investigate a range of existing products and explain what they like and dislike about the product</p> <p>That everyone should eat at least five portions of fruit and vegetables every day How to use techniques such as cutting, peeling and grating</p> <p>To know that all food comes from plants or animals</p>	<p>Let's get growing: Investigate a range of existing products and explain what they like and dislike about the product with reasons.</p> <p>Begin to evaluate how the key design in design technology have helped shape the world</p> <p>To know that food has to be farmed, grown elsewhere (e.g. home) or caught</p>	<p>Can I take your order?: Investigate a range of familiar products and consider how they work/meet design criteria.</p> <p>Evaluate how the key designs of individuals in design(chefs) and technology have helped shape the world</p> <p>To know that a healthy diet is made up from a variety and balance of different food and drink, as depicted in The Eatwell Guide</p> <p>To know that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world</p>	<p>Magnificent Mexico: Investigate a range of familiar products disassemble and consider the views of others to improve them</p> <p>Evaluate how the key designs of individuals in design and technology have helped shape the world</p> <p>To know that a healthy diet is made up from a variety and balance of different food and drink, as depicted in The Eatwell Guide</p>	<p>Gift of giving: Investigate existing products and evaluate appearance and functionality against criteria and consider why the specific materials are used</p> <p>Consider why selected materials have been used</p> <p>That seasons may affect the food available How food is processed into ingredients that can be eaten or used in cooking</p>	<p>Were the Vikings always vicious?: Investigate existing products and evaluate appearance and functionality against criteria and consider why the specific materials are used</p>	
Focussed Task		<p>Offer children activities to develop and further refine their small motor skills. Suggestions:</p> <ul style="list-style-type: none"> • pouring, • stirring • <p>Observe and interact with natural processes, such as ice or chocolate melting / warming food</p>	<p>Teach hygiene rules. Wash hands tie hair back wear apron</p> <p>Teach cutting skills bridge hold.</p> <p>Evaluate existing fruit salads taste</p>	<p>Teach safe grating skills.</p> <p>Techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking</p> <p>Evaluate existing pizzas – appearance, taste,</p>	<p>Evaluate existing vegan burgers - appearance - taste, texture</p>	<p>Teach cutting skill – claw/bridge model how to create different texture by cutting/ dice /slice /cube.</p> <p>Evaluate existing dips - appearance - taste, texture, healthy option</p>	<p>Evaluate existing soup – appearance, taste , texture, aroma suitability for focus audience</p>	<p>Teach Rubbing in method Rolling Use of cutters</p> <p>Evaluate existing savoury scones –appearance, taste , texture, suitability for target audience,</p>		

		<i>Designing & Making</i>		Regularly review the equipment for children to develop their small motor skills. Is it appropriate for the different levels of skill and confidence of children in the class? Is it challenging for the most dexterous children?	Use given design criteria to design a product. Draw, label and talk about their design. Select from a range of tools and equipment to perform a practical task.	Use given criteria and own experiences to design a product Draw and label their design and list equipment/materials needed Select from a range of tools and materials Use correct vocabulary to name and describe them	Create their own design criteria to design a product Use annotated sketches and research to create a design	Generate realistic ideas, focussing on the needs of the user (consider food allergies) Know that that recipes can be adapted to change the appearance, taste, texture and aroma	Generate ideas, drawing on research. Make decision based on restraints – IE cost / resources / time use techniques that involve a number of steps	Generate ideas, drawing on research. Make decision based on restraints – IE cost / resources / time use techniques that involve a number of steps
		<i>Evaluation</i>		Discuss what they like and dislike	Discuss what they like and dislike about their product and if their design met the criteria.	Evaluate their work against the given criteria – does it work how they planned. Evaluate their products identifying strengths and possible changes they might make next time.	Evaluate their work against the criteria during and at the end of the assignment, considering appearance, texture and the way it tastes. Discuss how well it meets the intended purpose and suggest improvements to the final product with reasons.	Evaluate their work against the criteria during and at the end of the assignment, considering appearance, taste, texture and healthy meal option. Discuss how well it meets the intended purpose, what are the successful elements of the design and what improvements could be made with reasons Evaluate their product carrying out appropriate tests (eg blind tasting)	Evaluate their work against the criteria during and at the end of the assignment, considering appearance and the way it tastes., taste, texture aroma suitability for target audience. Discuss how well it meets the intended purpose, what are the successful elements of the design and what improvements could be made with reasons Evaluate their product carrying out appropriate tests (questionnaire)	Evaluate their work against the criteria during and at the end of the assignment, considering appearance and the way it tastes., taste, texture aroma suitability for target audience. Discuss how well it meets the intended purpose, what are the successful elements of the design and what improvements could be made with reasons Evaluate their product carrying out appropriate tests (eg blind tasting/ questionnaire) Make improvements to their original design