2025 -2026 Skills Progression – Design & Technology

Cooking and Nutrition			Pre-School	Reception
				Soup
Skills	design			• Designing a soup recipe as a class. • Designing soup packaging.
	make			• Chopping plasticine safely. • Chopping vegetables with support.
	evaluate			• Tasting the soup and giving opinions. • Describing some of the following when tasting food: look, feel, smell and taste. • Choosing their favourite packaging design and explaining why.
Knowledge				• To know that soup is ingredients (usually vegetables and liquid) blended together. • To know that vegetables are grown. • To recognise and name some common vegetables. • To know that different vegetables taste different. • To know that eating vegetables is good for us. • To discuss why different packages might be used for different foods.

2025 -2026 Skills Progression – Design & Technology

Cooking and Nutrition		Year 1	Year 2	Year 3
		Smoothies	**Balanced Diet**	**Eating Seasonally**
Skills	design	• Designing smoothie carton packaging by-hand.	• Designing three wrap ideas based on a food combination which work well together.	• Designing a recipe for a savoury tart.
	make	• Chopping fruit and vegetables safely to make a smoothie. • Juicing fruits safely to make a smoothie.	• Chopping foods safely to make a wrap. • Constructing a wrap that meets a design brief. • Grating foods to make a wrap. • Snipping smaller foods instead of cutting.	• Following the instructions within a recipe. • Tasting seasonal ingredients. • Selecting seasonal ingredients. • Peeling ingredients safely. • Cutting safely with a vegetable knife.
	evaluate	• Tasting and evaluating different food combinations. • Describing appearance, smell and taste. • Suggesting information to be included on packaging. • Comparing their own smoothie with someone else's.	• Describing the taste, texture and smell of fruit and vegetables. • Taste testing food combinations and final products. • Describing the information that should be included on a label. •Evaluating food by giving a score.	• Establishing and using design criteria to help test and review dishes. • Describing the benefits of seasonal fruits and vegetables and the impact on the environment. • Suggesting points for improvement when making a seasonal tart.
Knowledge		• To know that a blender is a machine which mixes ingredients together into a smooth liquid. • To know that a fruit has seeds. • To know that fruits grow on trees or vines. • To know that vegetables can grow either above or below ground. • To know that vegetables is any edible part of a plant (e.g. roots: potatoes, leaves: lettuce, fruit: cucumber).	• To know that 'diet' means the food and drink that a person or animal usually eats. • To understand what makes a balanced diet. • To know that the five main food groups are: Carbohydrates, fruits and vegetables, protein, dairy and foods high in fat and sugar. • To understand that I should eat a range of different foods from each food group, and roughly how much of each food group. • To know that 'ingredients' means the items in a mixture or recipe.	• To know that not all fruits and vegetables can be grown in the UK. • To know that climate affects food growth. • To know that vegetables and fruit grow in certain seasons. • To know that cooking instructions are known as a 'recipe'. • To know that imported food is food which has been brought into the country. • To know that exported food is food which has been sent to another country.

				• To know that eating seasonal foods can have a positive impact on the environment. • To know that similar coloured fruits and vegetables often have similar nutritional benefits. • To know that the appearance of food is as important as taste.

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Cooking and Nutrition		Year 4	Year 5	Year 6
		Adapting a recipe	**Developing a recipe**	**Come dine with me**
Skills	design	• Designing a biscuit within a given budget, drawing upon previous taste testing judgements. • Designing packaging for a biscuit that targets a specific group.	• Adapting a traditional recipe, understanding that the nutritional value of a recipe alters if you remove, substitute or add additional ingredients. • Writing an amended method for a recipe to incorporate the relevant changes to ingredients. • Designing appealing packaging to reflect a recipe. • Researching existing recipes to inform ingredient choices.	• Writing a recipe, explaining the key steps, method and ingredients. • Including facts and drawings from research undertaken.
	make	• Following a baking recipe, including the preparation of ingredients. • Cooking safely, following basic hygiene rules. • Adapting a recipe to meet the requirements of a target audience. • Using a cuboid net to create packaging.	• Cutting and preparing vegetables safely. • Using equipment safely, including knives, hot pans and hobs. • Knowing how to avoid cross-contamination. • Following a step by step method carefully to make a recipe.	• Following a recipe, including using the correct quantities of each ingredient. • Adapting a recipe based on research. • Working to a given timescale. • Working safely and hygienically with independence.
	evaluate	• Evaluating a recipe, considering: taste, smell, texture and appearance. • Describing the impact of the budget on the selection of ingredients. • Evaluating and comparing a range of food products. • Suggesting modifications to a recipe (e.g. This biscuit has too many raisins, and it is falling apart, so next time I will use less raisins).	• Identifying the nutritional differences between different products and recipes. • Identifying and describing healthy benefits of food groups.	• Evaluating a recipe, considering: taste, smell, texture and origin of the food group. • Taste testing and scoring final products. • Suggesting and writing up points of improvements when scoring others' dishes, and when evaluating their own throughout the planning, preparation and cooking process.

				• Evaluating health and safety in production to minimise cross contamination.
Knowledge		• To know that the amount of an ingredient in a recipe is known as the 'quantity.' • To know that safety and hygiene are important when cooking. • To know the following cooking techniques: sieving, measuring, stirring, cutting out and shaping. •To understand the importance of budgeting while planning ingredients for biscuits. • To know that products often have a target audience.	• To understand where meat comes from - learning that beef is from cattle and how beef is reared and processed. • To know that recipes can be adapted to suit nutritional needs and dietary requirements. • To know that I can use a nutritional calculator to see how healthy a food option is. • To understand that 'cross-contamination' means bacteria and germs have been passed onto ready-to-eat foods and it happens when these foods mix with raw meat or unclean objects. • To know that coloured chopping boards can prevent cross-contamination. • To know that nutritional information is found on food packaging. • To know that food packaging serves many purposes.	• To know that 'flavour' is how a food or drink tastes. • To know that many countries have 'national dishes' which are recipes associated with that country. • To know that 'processed food' means food that has been put through multiple changes in a factory. • To understand that it is important to wash fruit and vegetables before eating to remove any dirt and insecticides. • To understand what happens to a certain food before it appears on the supermarket shelf (Farm to Fork).

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Mechanical Systems			Pre-School	Reception
Skills	design			 Reception no mechanical systems unit
	make			
	evaluate			
Knowledge				

2025 -2026 Skills Progression – Design & Technology

Mechanical Systems		Year 1	Year 2	Year 3
		Moving storybook	**Fairground wheel**	Year 3 no mechanical systems unit
Skills	design	• Explaining how to adapt mechanisms, using bridges or guides to control the movement. • Designing a moving story book for a given audience.	● Conducting simple surveys or discussions to gather opinions on what others need or like in a design. ● Knowing that a survey is used to find out what people like. ● Using a simple design brief that outlines the intended use, target user, and key features of the product, to create simple design criteria. ● Knowing that a design brief helps to decide what to make. ● Knowing that design criteria are the steps for making a product successful. ● Creating ideas with design criteria in mind. ● Referring to specific parts of existing products when generating ideas. ● Knowing that the design criteria help when thinking of ideas. ● Using labels to explain parts of a design, label materials, etc. ● Using labels to explain parts of a design, label materials, etc. ● Knowing that drawings can help explain how something works. ● Knowing that a label explains part of a drawing	
	make	• Following a design to create moving models that use levers and sliders.	● Choosing materials, ingredients or components from a wider range of materials, ingredients or	

			components. ● Explaining their choices based on the properties of materials and components. ● Knowing some properties of materials like hard, soft, flexible, waterproof, strong etc. ● Following and recalling simple safety instructions. ● Knowing that some tools are sharp like scissors and knives. ● Choosing known geometric shapes when making. ● Beginning to shape objects to improve how they work. ● Knowing the names of some geometric shapes: triangle, pyramid, square, cube, circle, sphere. ● Considering balance in their finishing, like evenly spaced decoration.	
	evaluate	• 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.	● Discussing a range of existing products and saying what they like and dislike about them. ● Evaluating existing products against design criteria. ● Evaluating their ideas and creations against simple design criteria. ● Knowing that design criteria help to decide if their product is a success. ● Suggesting improvements to their peers' designs and products. ● Knowing that improve means to make something better. ● Knowing that their suggestions can improve someone else's work.	

Knowledge	technical	• To know that a mechanism is the parts of an object that move together. •To know that a slider mechanism moves an object from side to side. • To know that a slider mechanism has a slider, slots, guides and an object. • To know that bridges and guides are bits of card that purposefully restrict the movement of the slider.	To know everyday objects have mechanisms. ● To know many things that move have parts inside to help them work. ● To know mechanisms usually limit unwanted movement. ● To know everyday objects utilise wheels and axles. ● To know wheels must be able to turn to work effectively. ● To know axles allow wheels to turn without falling off.	
	additional	• To know that in Design and technology we call a plan a 'design'.	• To know the features of a fairground wheel include the wheel, frame, pods, a base an axle and an axle holder.	

2025 -2026 Skills Progression – Design & Technology

Mechanical Systems		Year 4	Year 5	Year 6
Skills	design	Year 4 no mechanical systems unit	Year 5 no mechanical systems unit	**Automata toys** ● Noticing wider-reaching problems or needs in the community. ● Coming up with a broader range of ideas and deeper innovation, requiring pupils to think critically about their ideas' practicality and originality. ● Beginning to use more complex annotated sketches, such as cross-sectional and exploded diagrams and pattern pieces in design.
	make			● Producing lists of equipment, materials and tools that they need for a task. ● Selecting materials, components or ingredients based on research or user needs. ● Explaining their choices, referring to their research. ● Considering which equipment will work well together. ● Choosing from the known range of equipment available to them with little guidance. ● Assessing risks associated with different tools and equipment. ● Understanding and explaining the importance of each safety rule. ● Consistently apply safety instructions. ● Cutting jelutong or other harder wood with a coping saw or a tenon saw in small groups.

				● Cutting in a back-and-forth sawing motion where appropriate. ● In supervised groups, using hot glue guns safely. ● Recognising that hot glue is useful for joining materials that need a strong bond that sets quickly.
	evaluate			● Assessing their designs against a more complex set of design criteria that includes functionality, aesthetics, user experience, sustainability and cost. ● Providing feedback that is helpful, specific and encouraging. ● Incorporating feedback from peers or users to improve their product further, explaining the changes they made and the impact they had.
Knowledge	technical			• To know that the mechanism in an automata uses a system of cams, axles and followers. • To know that different shaped cams produce different outputs. ● To know which mechanisms are working together to make a mechanical system. ● To know that there are different directions of movement. ● To know that mechanisms can change one type of movement to another.
	additional			• To know that an automata is a hand powered mechanical toy. • To know that a cross-sectional diagram shows the inner workings of a product.

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Structures			Pre-School	Reception
			Junk modelling	**Boats**
Skills	design		• Making verbal plans and material choices. • Developing a junk model.	• Designing a junk model boat. • Using knowledge from exploration to inform design.
	make		• Improving fine motor/scissor skills with a variety of materials. • Joining materials in a variety of ways (temporary and permanent). • Joining different materials together. • Describing their junk model, and how they intend to put it together.	• Making a boat that floats and is waterproof, considering material choices.
	evaluate		• Giving a verbal evaluation of their own and others' junk models with adult support. • Checking to see if their model matches their plan. • Considering what they would do differently if they were to do it again. • Describing their favourite and least favourite part of their model.	• Making predictions about, and evaluating different materials to see if they are waterproof. • Making predictions about, and evaluating existing boats to see which floats best. • Testing their design and reflecting on what could have been done differently. • Investigating the how the shapes and structure of a boat affect the way it moves.
Knowledge	technical		• To know there are a range to different materials that can be used to make a model and that they are all slightly different. • Making simple suggestions to fix their junk model.	• To know that 'waterproof' materials are those which do not absorb water.

	additional			• To know that some objects float and others sink. • To know the different parts of a boat.

2025 -2026 Skills Progression – Design & Technology

Structures		Year 1	Year 2	Year 3
Skills	design	Year 1 no structures unit	**Baby Bear's chair** • Generating and communicating ideas using sketching and modelling. • Learning about different types of structures, found in the natural world and in everyday objects.	Year 3 no structures unit
	make		• Making a structure according to design criteria. • Creating joints and structures from paper/card and tape. • Building a strong and stiff structure by folding paper.	
	evaluate		• Exploring the features of structures. • Comparing the stability of different shapes. • Testing the strength of own structures. • Identifying the weakest part of a structure. • Evaluating the strength, stiffness and stability of own structure.	
Knowledge	technical		• To know that shapes and structures with wide, flat bases or legs are the most stable. • To understand that the shape of a structure affects its strength. • To know that materials can be manipulated to improve strength and stiffness. • To know that a structure is something which has been formed or made from parts.	

			• To know that a ‘stable’ structure is one which is firmly fixed and unlikely to change or move. • To know that a ‘strong’ structure is one which does not break easily. • To know that a ‘stiff’ structure or material is one which does not bend easily.	
	additional		• To know that natural structures are those found in nature. • To know that man-made structures are those made by people.	

2025 -2026 Skills Progression – Design & Technology

Structures		Year 4	Year 5	Year 6
			Bridges	Playgrounds
Skills	design	Year 4 no structures unit	• Designing a stable structure that is able to support weight. • Creating a frame structure with a focus on triangulation.	• Designing a playground featuring a variety of different structures, considering how the structures will be used and considering effective and ineffective designs.
	make		• Making a range of different shaped beam bridges. • Using triangles to create truss bridges that span a given distance and support a load. • Building a wooden bridge structure. • Independently measuring and marking wood accurately. • Selecting appropriate tools and equipment for particular tasks. • Using the correct techniques to saws safely. • Identifying where a structure needs reinforcement and using card corners for support. • Explaining why selecting appropriating materials is an important part of the design process. • Understanding basic wood functional properties.	• Building a range of play apparatus structures drawing upon new and prior knowledge of structures. • Measuring, marking and cutting wood to create a range of structures. • Using a range of materials to reinforce and add decoration to structures.
	evaluate		• Adapting and improving own bridge structure by identifying points of weakness and reinforcing them as necessary.	• Improving a design plan based on peer evaluation. • Testing and adapting a design to improve it as it is developed.

			• Suggesting points for improvements for own bridges and those designed by others.	• Identifying what makes a successful structure.
Knowledge	technical		• To understand some different ways to reinforce structures. • To understand how triangles can be used to reinforce bridges. • To know that properties are words that describe the form and function of materials. • To understand why material selection is important based on properties. • To understand the material (functional and aesthetic) properties of wood.	• To know that structures can be strengthened by manipulating materials and shapes.
	additional		• To understand the difference between arch, beam, truss and suspension bridges. • To understand how to carry and use a saw safely.	• To understand what a 'footprint plan' is. • To understand that in the real world, design, can impact users in positive and negative ways. • To know that a prototype is a cheap model to test a design idea.

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Textiles			Pre-School	Reception
				Bookmarks
Skills	design			• Discussing what a good design needs. • Designing a simple pattern with paper. • Designing a bookmark. • Choosing from available materials.
	make			• Developing fine motor/cutting skills with scissors. • Exploring fine motor/threading and weaving (under, over technique) with a variety of materials. • Using a prepared needle and wool to practise threading.
	evaluate			• Reflecting on a finished product and comparing to their design.
Knowledge				• To know that a design is a way of planning our idea before we start. • To know that threading is putting one material through an object.

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Textiles		Year 1	Year 2	Year 3
		Puppets	Year 2 no textiles unit	**Egyptian collars**
Skills	design	• Using a template to create a design for a puppet.		• Designing and making a template and applying individual design criteria.
	make	• Cutting fabric neatly with scissors. • Using joining methods to decorate a puppet. • Sequencing steps for construction.		• Following design criteria to create an Egyptian collar. • Selecting and cutting fabrics with ease using fabric scissors. • Threading needles with greater independence. • Tying knots with greater independence. • Sewing cross stitch to join fabric. • Decorating fabric using appliqué. • Completing design by embellishing the collars based on design ideas.
	evaluate	• Reflecting on a finished product, explaining likes and dislikes.		• Evaluating an end product and thinking of other ways in which to create similar items.
Knowledge		• To know that a design is a way of planning our idea before we start. • To know that threading is putting one material through an object.		•To know that applique is a way of mending or decorating a textile by applying smaller pieces of fabric to larger pieces. •To know that when two edges of fabric have been joined together it is called a seam. •To know that it is important to leave space on the fabric for the seam. •To understand that some products are turned inside out after sewing so the stitching is hidden.

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Textiles		Year 4	Year 5	Year 6
		Fastenings	Year 5 no textiles unit	Year 6 no textiles unit
Skills	design	• Writing design criteria for a product, articulating decisions made. • Designing a personalised book sleeve.		
	make	• 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, working neatly by sewing small, straight stitches. • Incorporating fastening to a design.		
	evaluate	• Evaluating an end product and thinking of other ways in which to create similar items.		
Knowledge		•To know that applique is a way of mending or decorating a textile by applying smaller pieces of fabric to larger pieces. •To know that when two edges of fabric have been joined together it is called a seam. •To know that it is important to leave space on the fabric for the seam. •To understand that some products are turned inside out after sewing so the stitching is hidden.		

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Electrical Systems (KS2)				Year 3
Skills	design			Year 3 no electrical systems unit
	make			
	evaluate			
Knowledge				

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Electrical Systems (KS2)		Year 4	Year 5	Year 6
		Torches	Doodlers	
Skills	design	• Designing a torch, considering the target audience and creating both design and success criteria focusing on features of individual design ideas.	• Identifying factors that could be changed on existing products and explaining how these would alter the form and function of the product. • Developing design criteria based on findings from investigating existing products. • Developing design criteria that clarifies the target user.	Year 6 no electrical systems unit
	make	• Making a torch with a working electrical circuit and switch. • Using appropriate equipment to cut and attach materials. • Assembling a torch according to the design and success criteria.	• Altering a product's form and function by tinkering with its configuration. • Making a functional series circuit, incorporating a motor. • Constructing a product considering the design criteria. • Breaking down the construction process into steps so that others can make the product.	
	evaluate	• Evaluating electrical products. • Testing and evaluating the success of a final product.	• Carry out a product analysis to look at the purpose of a product along with its strengths and weaknesses. • Determining which parts of a product affect its function and which parts affect its form. • Analysing whether changes in configuration positively or negatively affect an existing product.	

			• Peer evaluating a set of instructions to build a product.	
Knowledge	technical	• To understand that electrical conductors are materials which electricity can pass through. • To understand that electrical insulators are materials which electricity cannot pass through. • To know that a battery contains stored electricity that can be used to power products. • To know that an electrical circuit must be complete for electricity to flow. • To know that a switch can be used to complete and break an electrical circuit.	• To know that series circuits only have one direction for the electricity to flow. • To know when there is a break in a series circuit, all components turn off. • To know that an electric motor converts electrical energy into rotational movement, causing the motor's axle to spin. • To know a motorised product is one which uses a motor to function.	
	additional	• To know the features of a torch: case, contacts, batteries, switch, reflector, lamp, lens. • To know facts from the history and invention of the electric light bulb(s) - by Sir Joseph Swan and Thomas Edison.	• To know that product analysis is critiquing the strengths and weaknesses of a product. • To know that 'configuration' means how the parts of a product are arranged.	

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Digital world (KS2)				Year 3
				Wearable technology
Skills	design			• Problem solving by suggesting which features on a Micro: bit might be useful and justifying my ideas. • Drawing and manipulating 2D shapes, using computer-aided design, to produce a point of sale badge. • Developing design ideas through annotated sketches to create a product concept. • Developing design criteria to respond to a design brief.
	make			• Following a list of design requirements. • Writing a program to control (button press) and/or monitor (sense light) that will initiate a flashing LED algorithm.
	evaluate			• Analysing and evaluating wearable technology. • Using feedback from peers to improve design.
Knowledge	technical			• To understand that, in programming, a 'loop' is code that repeats something again and again until stopped. • To know that a Micro:bit is a pocket-sized, codeable computer. • To know that a simulator is able to replicate the functions of an existing piece of technology.

	additional			•To know what the 'Digital Revolution' is and features of some of the products that have evolved as a result. • To understand what is meant by 'point of sale display.' • To know that CAD stands for 'Computer-aided design'. • To know what a focus group is by taking part in one.

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Digital world (KS2)		Year 4	Year 5	Year 6
Skills	design	Year 4 no digital world unit	Year 5 no digital world unit	Year 6 no digital world unit
	make			
	evaluate			
Knowledge	technical			
	additional			