



Design and Technology Progression of Knowledge and Skills



	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design	<p>I know how to create recognisable representations of objects.</p> <p>I can represent my ideas thinking about how to use different materials and what to make.</p>	<p>I know that a design is something you follow to make an end product.</p> <p>I can share ideas and use a variety of resources to help me plan my ideas.</p>	<p>I know design criteria are the goals that a project must achieve.</p> <p>I can create a design to meet simple design criteria.</p>	<p>I know that ideas can be communicated in a variety of ways.</p> <p>I can generate and communicate my ideas through a range of different methods.</p>	<p>I know that design criteria are the exact goals a project must achieve to be successful.</p> <p>I can develop design criteria to inform a design.</p>	<p>I know annotated sketches and exploded diagrams show specific parts of a design, highlight sections or show functions.</p> <p>I can use annotated sketches and exploded diagrams to test and communicate my ideas.</p>	<p>I know that the design of a product is sometimes influenced by culture or society.</p> <p>I can explain how the design of a product has been influenced by the culture or society in which it was designed or made.</p>	<p>I know design criteria should cover the intended use of the product, age range targeted and final appearance.</p> <p>I can develop design criteria for a functional and appealing product that is fit for purpose, communicating ideas clearly in a range of ways.</p>
Make	<p>I know that there are different ways of joining materials.</p> <p>I can explore materials freely and can find different ways of joining them.</p>	<p>I know different tools are needed for different tasks.</p> <p>I can choose and explore appropriate tools for simple practical tasks.</p>	<p>I know specific tools are used for particular purposes.</p> <p>I can select the appropriate tool for a simple practical task.</p>	<p>I know different tools have characteristics that make them suitable for specific purposes.</p> <p>I can select the appropriate tool for a task and explain my choice.</p>	<p>I know that specific tools can be used for different methods of cutting and joining.</p> <p>I can use tools safely for cutting and joining materials and components.</p>	<p>I know specific tools are used for cutting and should only be used with adult supervision.</p> <p>I can select, name and use tools with adult supervision.</p>	<p>I know there are many rules for using tools safely and these may vary depending on the tools being used.</p> <p>I can name and select appropriate tools for a task and use them safely.</p>	<p>I know precision is important in producing a polished, finished product.</p> <p>I can select appropriate tools for a task and use them safely and precisely.</p>
Evaluate	<p>I know that I can make changes to my design.</p> <p>I can begin to talk about things I have made and changes I could make.</p>	<p>I know that I can change my design to improve it.</p> <p>I can talk about my work as I am constructing and making.</p>	<p>I know a strength is a good quality of a piece of work. A weakness is an area that could be improved.</p> <p>I can talk about my own and other's work, identifying strengths or weaknesses and offering support</p>	<p>I know that finished products can be compared with design criteria to see how closely they match and that improvements can then be planned.</p> <p>I can explain how closely my finished products meet my design criteria and say what they could</p>	<p>I know that asking questions can help others to evaluate my products.</p> <p>I can suggest improvements to my products and describe how to implement them, beginning to</p>	<p>I know evaluation can be done by considering whether the product does what it was designed to do and includes suggesting improvements and explaining why they should be made.</p> <p>I can identify what has worked well and what aspects of my products could be improved, acting on my own suggestions</p>	<p>I know testing a product against the design criteria will highlight anything that needs improvement or redesign.</p> <p>I can test and evaluate products against a detailed design specification and make adaptations</p>	<p>I know design is an iterative process, meaning alterations and improvements are made continually throughout the manufacturing process.</p> <p>I can demonstrate modifications made to a product as a result of ongoing evaluation by themselves and to others.</p>

				do better in the future.	take the views of others into account.	and those of others when making improvements.	as they develop the product.		
Cooking and Nutrition		I know food comes from animals or from plants.	I know some foods come from animals, such as meat, fish and dairy products and other foods come from plants, such as fruit, vegetables, grains, beans and nuts.	I know that food comes from two main sources: animals and plants.	I know the types of food that will grow in a particular area depend on a range of factors, such as the rainfall, climate and soil type.	I know particular areas of the world have conditions suited to growing certain crops.	I know seasonality is the time of year when the harvest or flavour of a type of food is at its best. Buying seasonal food is beneficial for many reasons.	I know organic produce is food that has been grown without the use of man-made fertilisers, pesticides, growth regulators or animal feed additives.	
		I can begin to identify where some foods come from.	I can sort foods into groups by whether they are from an animal or plant source.	I can identify the origin of some common foods.	I can identify and name foods that are produced in different places.	I can identify and name foods that are produced in different places in the UK and beyond.	I can describe what seasonality means and explain some of the reasons why it is beneficial.	I can explain how organic produce is grown.	
		I know that some foods and healthy and some are unhealthy.	I know there are healthy and unhealthy foods.	I know fruit and vegetables are an important part of a healthy diet.	I know a healthy diet should include meat or fish, starchy foods, dairy foods, a small amount of fat and plenty of fruit and vegetables.	I know there are five main food groups that should be eaten regularly as part of a balanced diet. Foods high in fat, salt and sugar should only be eaten occasionally as part of a healthy, balanced diet.	I know healthy snacks include fresh or dried fruit and vegetables, nuts and seeds and low fat/low sugar foods.	I know a balanced diet gives your body all the nutrients it needs to function correctly. This means eating a wide variety of foods in the correct proportions.	I know eating a balanced diet is a positive lifestyle choice that should be sustained over time.
		I can recognise some different types healthy and unhealthy food.	I can suggest healthy ingredients that can be used to make simple snacks.	I can select healthy ingredients for a fruit or vegetable salad.	I can describe the types of food needed for a healthy and varied diet and apply the principles to make a simple, healthy meal.	I can identify main food groups (carbohydrates, protein, dairy, fruits and veg, fats and sugars).	I can design a healthy snack or packed lunch and explain why it is healthy.	I can evaluate meals and consider if they contribute towards a balanced diet.	I can plan a healthy daily diet, justifying why each meal contributes towards a balanced diet.
		I know a recipe is a set of instructions for making a dish and includes a list of the ingredients.	I know a recipe is a set of instructions that can use non-standard measures and can be a way of measuring that does not involve reading scales.	I know some ingredients need to be prepared before they can be cooked or eaten.	I know the preparation techniques for savoury dishes include peeling, chopping, deseeding, slicing, dicing, grating, mixing and skinning.	I know cooking techniques include baking, boiling, frying, grilling and roasting.	I know sweet dishes are usually desserts, such as cakes, fruit pies and trifles. Savoury dishes usually have a salty or spicy flavour rather than a sweet one.	I know ingredients can usually be bought at supermarkets, but specialist shops may stock different items.	
		I can follow instructions, including simple recipes, that	I can follow simple instructions including those in a simple	I can prepare ingredients by peeling,	I can prepare and cook a simple savoury dish.	I can identify and use a range of cooking techniques to prepare	I can use an increasing range of preparation and	I can follow a recipe that requires a variety of techniques and	

		include measures and ingredients.	recipe to measure and weigh food items using non-standard measures, such as spoons and cups	grating, chopping and slicing.		a simple meal or snack.	cooking techniques to cook a sweet or savoury dish.	source the necessary ingredients independently.
Safety	I know that rules keep us safe when using equipment.	I know rules keep us safe when using equipment.	I know rules are made to keep people safe from danger.	I know hygiene rules include washing hands before handling food, cleaning surfaces, tying long hair back, storing food appropriately and wiping up spills.	I know electrical appliances must only be used under the supervision of an adult.	I know chemicals are used in the home every day and should only be used under adult supervision.	I know safety features are often incorporated into products that might cause harm.	I know the safety of the user has to be taken into account when designing a new product.
	I can follow rules and use equipment under supervision.	I can follow rules and instructions to keep safe.	I can follow the rules to keep safe during a practical task.	I can work safely and hygienically in construction and cooking activities.	I can use appliances safely with adult supervision.	I can work safely with everyday chemical products under supervision, such as disinfectant hand wash and surface cleaning spray.	I can explain the functionality and purpose of safety features on a range of products.	I can demonstrate how my products take into account the safety of the user.
Materials for purpose			I know different materials are suitable for different purposes, depending on their specific properties.	I know properties of components and materials determine how they can and cannot be used.	I know materials for a specific task must be selected based on their properties. These include physical properties as well as availability and cost.	I know different materials and components have a range of properties, making them suitable for different tasks and materials should be selected depending on the design criteria.	I know materials should be cut and combined with precision.	I know it is important to understand the characteristics of different materials to select the most appropriate material for a purpose.
			I can choose appropriate components and materials and suggest ways of manipulating them to achieve the desired effect.	I can plan which materials will be needed for a task and explain why.	I can choose from a range of materials, showing an understanding of their different characteristics.	I can select and combine materials with precision.	I can choose the best materials for a task, showing an understanding of their working characteristics.	I can select and use a range of materials, beginning to explain their choices.
Structures			I know different materials can be used for different purposes, depending on their properties.	I know structures can be made stronger, stiffer and more stable by using cardboard, triangular shapes and a broader base.	I know different types of structures: Shell structures are hollow, 3-D structures with a thin outer covering, such as a box. Frame structures are made from thin, rigid components,	I know a prototype is a mock-up of a design that will look like the finished structure but may not be full size or made of the same materials.	I know various methods can be used to support a framework. These include cross braces, guy ropes and diagonal struts.	I know strength can be added to a framework by using multiple layers.

					such as a tent frame. The rigid frame gives the structure shape and support. Diagonal struts can strengthen the structure.			
			I can construct simple structures, models or other products using a range of materials.	I can explore how a structure can be made stronger, stiffer and more stable.	I can create shell or frame structures using diagonal struts to strengthen them.	I can create a prototype showing awareness of how to strengthen, stiffen and reinforce.	I can build a framework using a range of materials to support mechanisms.	I can select the most appropriate materials and frameworks for different structures, explaining what makes them strong.
Mechanisms				I know an axle is a rod or spindle that passes through the centre of a wheel to connect two wheels. I can use wheels and axles to make a simple moving model.	I know levers consist of a rigid bar that rotates around a fixed point, called a fulcrum. They reduce the amount of work needed to lift a heavy object. I can explore and use a range of mechanisms (axles, wheels and cams) in models or products.	I know mechanisms can be used to add functionality to a model. I can explore and use a range of mechanisms (levers, gears and pulleys) in models or products.	I know pneumatic systems use energy that is stored in compressed air to do work. I can use mechanical systems in my products.	I know mechanical systems can include sliders, levers, linkages, gears, pulleys and cams. Other mechanisms include pneumatics and hydraulics. I can explain and use mechanical systems in their products to meet a design brief.