Design and Technology Progression Map

DT	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Progression Map	3 and 4 year olds Personal, Social and Emotional Development · 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.	**Designing**					
		Understanding contexts, users and purposes.					
		State what produces they are designing and making. Say whether their products are for themselves or others.					
		Describe what their products are for.		Describe the purpose of their products.			
		Say how their products will work.		Explain how particular parts of their product will work.			
				Gather information about the needs and wants of particular individuals and groups.		Carry out research, using surveys, interviews, questionnaires and web-based resources.	
		Say how they will make their products suitable for their intended users.		Indicate the design features of their products that will appeal to intended users.			
		Use simple design criteria to help develop their ideas.		Develop their own design criteria and use these to inform their ideas.		Identify the needs, wants, preferences and values of particular individuals and groups.in order to develop a simple design specification to guide their thinking.	
		Generating, developing, modelling and communicating ideas.					
	3 and 4 year olds Physical Development 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.	Generate ideas by drawing on their own experiences.		Generate realistic ideas, focusing on the needs of the user.		Generate innovative ideas, drawing on research.	
		Use knowledge of existing products to help come up with ideas.					
		Develop and communicate ideas by talking and drawing.		Share and clarify ideas through discussion. Use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas.			
		Model ideas by exploring materials, components and construction kits and by making templates and mockups.		Model ideas using prototypes and pattern pieces.			
		Use information and communication technology, where appropriate, to develop and communicate their ideas.		Use computer aided design to develop and communicate their ideas.			
		Making					
		Planning					
		Select from a range of tools and equipment.		Select tools and equipment suitable for the task.		Produce appropriate lists of tools and equipment that they need.	

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		Select from a range of materials and components according to their characteristics.	Select materials and components suitable for the task.
	3 and 4 year olds Understanding the World · Explore how things work.		Order the main stages of making. | Formulate step by step guides as a plan to making.
		Practical skills and techniques	
		Follow procedures for safety.	
		Use a range of materials and components, including construction materials and kits, textiles, food ingredients and mechanical components.	Use a wider range of materials and components than KS1, including construction materials and kits, textiles, food ingredients, mechanical components and electrical components.
		Measure, mark out, cut and shape materials and components.	Measure, mark out, cut and shape materials and components with some accuracy. | Measure, mark out, cut and shape materials and components accurately.
		Assemble, join and combine components and materials.	Assemble, join and combine components and materials with some accuracy. | Assemble, join and combine components and materials accurately.
		Use finishing techniques including those from Art and Design.	Apply a range of finishing techniques including those from Art and Design with some accuracy. | Accurately apply a range of finishing techniques including those from Art and Design.
			Demonstrate resourcefulness with tackling practical problems.
		Evaluating	
	Expressive Arts and Design · 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.	**Own ideas and products**	
		Talk about their design ideas and what they are making.	Identify the strengths and areas for development in their ideas and products, considering the views of others, including intended users, in order to improve their work.
		Make simple judgements about their products and ideas against design criteria.	Refer to their design criteria as they design and make. | Critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make.
		Existing products	
		Explore what products are, who products are for, what products are for, how products work, how products are produced, where products might be used, what materials products might be made from and what they like and dislike about products.	Investigate and analyse how well products have been designed, how well products have been made, why materials have been chosen, what methods of construction have been used, how well products work, how well products achieve their purposes and how well products meet user needs and wants.
			Investigate and analyse who designed and made the products, where products were designed and made, when products were designed and made and whether products can be recycled or reused. | Investigate and analyse how much products cost to make, how innovative products are, how sustainable the materials in products are and what impact products have beyond their intended purpose.
		Key events and individuals	
			Pupils should know about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products.

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	Technical Knowledge				
ELG Physical Development Fine Motor Skills · Use a range of small tools, including scissors, paintbrushes and cutlery.	**Making Products Work**				
	Pupils should know about the simple working characteristics of materials and components.	Know that materials have both functional properties and aesthetic qualities.			
		Know how to use learning from Science and Mathematics to help design and make products that work.			
	Pupils should know about the movement of simple mechanisms such as levers, sliders, wheels and axels.	Know that mechanical and electrical systems have an input, process and output.			
		Know how mechanical systems such as levers and linkages or pneumatic systems create movement.	Know how mechanical systems such as cams or pulleys or gears create movement.		
		Know how simple electrical circuits and components can be used to create functional products.	Know how more complex electrical circuits and components can be used to create functional products.		
		Know how to program a computer to control their products.	Know how to program a computer to monitor changes in the environment and control their products.		
	Pupils show know about how free standing structures can be made stronger, stiffer and more stable.	Know how to make strong, stiff shell structures.	Know how to reinforce and strengthen a 3D framework.		
	Cooking and Nutrition				
ELG Expressive Arts and Design Creating with Materials · Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. · Share their creations, explaining the process they have used.	**Where food comes from**				
		Know that all food comes from plants or animals.			Know that seasons may affect the food available.
		Know that food has to be farmed, grown elsewhere (eg home) or caught.		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.		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.
					Know how food is processed into ingredients that can be eaten or used in cooking.
	Food preparation, cooking and nutrition				
		Know how to name and sort foods into the five groups in The eatwell plate.		Know that a healthy diet is made up from a variety and balance of different food and drink, as depicted in The eatwell plate.		

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			Know that everyone should eat at least five portions of fruit and vegetables every day.		Know that to be active and healthy, food and drink are needed to provide energy for the body.		Know that different food and drink contain different substances – nutrients, water and fibre – that are needed for health.
			Know how to prepare simple dishes safely and hygienically.		Know how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source.		Know how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source.
			Know how to use techniques such as cutting, peeling and grating.		Know how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.		Know how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.