DT Progression Document

Progression in DT Knowledge, concepts and skills	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Designing Concepts: Design, Technology, Data, Evaluate, Functionality, Innovation	Share ideas and skills to create an idea		Use own ideas to design something and describe how their own idea works Design a product which moves Explain to someone else how they want to make their product Create a simple plan before making	Think of an idea and plan what to do next Explain why specific materials have been chosen	Prove that a design meets a set criteria Design a product and make sure that it looks attractive Choose a material for both its suitability and its appearance	Use ideas from other people when designing Produce a plan and explain it Persevere and adapt work when original ideas do not work Communicate ideas in a range of ways, including annotating drawings and sketches	Come up with a range of ideas after collecting information from different sources Produce a detailed, step-by-step plan Explain how a product will appeal to a specific audience Design a product that requires pulleys or gears	Use market research to inform plans and ideas Follow and refine original plans justify planning in a convincing way Show that culture and society is considered in plans and designs	Can reformulate problems Can solve design problems Understand user needs Use a range of domestic, local and industrial contexts Can give reference to and incorporate different cultures
Making Concepts:	Explore different materials, using senses to investigate them		Use own ideas to make something	Choose tools and materials and explain why they	Follow a step-by-step plan, choosing the	Know which tools to use for a particular	Use a range of tools and	Know which tool to use for a	Can complete a range of creative and practical activities

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Technology, Evaluate, Functionality, Innovation	Make simple models which express ideas	Make a product that moves Choose appropriate resources and tools	have chosen them Join materials and components in different ways Measure materials to use in a model or structure	right equipment and materials Select the most appropriate tools and techniques for a given task Make a product which uses both electrical and mechanical components Work accurately to measure, make cuts and make holes	task and show knowledge of handling the tool Know which material is likely to give the best outcome Measure accurately	equipment competently Make a prototype before making a final version Make a product that relies on pulleys or gears	specific practical task Know how to use any tool correctly and safely Know what each tool is used for Explain why a specific tool is best for a specific action	Use a variety of approaches to make products Produce innovative, functioning and appealing products
Technical Knowledge Concepts: Design, Technology, Evaluate, Functionality, Innovation	Create closed shapes with continuous lines Use shapes to represent objects	Make a model stronger and more stable Use sliders and levers appropriately	Use wheels and axles appropriately	Know how to strengthen a product by stiffening a given part or reinforce a part of the structure Use a simple IT program within the design	Link scientific knowledge by using buzzers Use electrical systems to enhance the quality of the product Use IT, where appropriate, to add to the quality of the product	Links scientific knowledge to design by using pulleys or gears Use a more complex IT program to help enhance the quality of the product produced	Use electrical systems correctly and accurately to enhance a given product Know which IT product would further enhance a specific product Use knowledge to improve a	Incorporate Biomimicry into ideas and products Use iterative processes

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							made product by strengthening, stiffening or reinforcing	
Food Technology Concepts: Design, Nutrition, Technology, Evaluate, Functionality	Identify fruits and vegetables	Cut food safely	Weigh ingredients to use in a recipe Describe the ingredients used when making a product	Describe how food ingredients come together Weigh out ingredients and follow a given recipe to create a dish Talk about which food is healthy and which food is not Know when food is ready for harvesting	Know how to be both hygienic and safe when using food Bring a creative element to the food product being designed	Be both hygienic and safe in the kitchen Know how to prepare a meal by collecting the ingredients in the first place Know which season various foods are available for harvesting	Explain how food ingredients should be stored and give reasons Work within a budget to create a meal Understand the difference between a savoury and sweet dish	Understand food hygiene and safety Use the most appropriate tools for cooking Understand nutritional value Identify food sources and availability Use sensory/organoleptic evaluation

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Subject	Concept lens'	Explanation
Design & Technology	Design	A plan or drawing produced to show the look and function or workings of a building, garment, or other object before it is made.
	Nutrition	The nourishment or energy that is obtained from food consumed or the process of consuming the proper amount of nourishment and energy. An example of nutrition is the nutrients found in fruits and vegetables. An example of nutrition is eating a healthy diet.
	Technology	Technology is science or knowledge put into practical use to solve problems or invent useful tools.
	Data	Data is "known facts". It especially refers to numbers, but can also mean words, sounds, and images too. Originally, data is the plural of the Latin word datum which means "give".
	evaluate	To evaluate is the act or the result of evaluating a situation that requires careful consideration to determine the value, nature, character, or quality of something.
	functionality	The quality or state of being functional. A design that is admired both for its beauty and for its functionality: the set of functions or capabilities associated with something.
	innovation	The process of making (something) new or doing something in a new way. ***Innovation*** also has to include the concept of improvement; to ***innovate*** is not just to do something differently, but to do or make something better.