DT – Curriculum objective progression overview and coverage

	Nursery	Reception	Yr1	Yr2				
Generation of ideas	Develop own ideas and decide which materials to use to express them.	Explore and refine ideas and designs.	Create a design to meet simple design criteria. **Moon Zoom**	Generate and communicate their ideas through a range of different methods. **Towers, tunnels and turrets**	Develop design criteria to inform a design. **Scrumdiddlyumptious, Towers, tunnels and turrets**	Use annotated sketches and exploded diagrams to test and communicate their ideas. **I am Warrior!**	Use pattern pieces and computer-aided design packages to design a product. **Scream Machine**	Develop design criteria for a functional and appealing product that is fit for purpose, communicating ideas clearly in a range of ways. **Bloodheart, ID**
Use of ICT			Use design software to create a simple plan for a design.	Use design software to create a simple labelled design or plan.	Write a program to make something move on a tablet or computer screen.	Write a program to control a physical device, such as a light, speaker or buzzer.	Link a physical device to a computer or tablet so that it can be controlled (such as changing motor speed or turning an LED on and off) by a program. **Scream Machine**	Use a sensor to monitor an environmental variable, such as temperature, sound or light. **Tomorrow's World**
Structures	Make imaginative small worlds with blocks and construction kits.	Construct simple structures with models independently sometimes following instructions.	Construct simple structures, models or other products using a range of materials. **Moon Zoom**	Explore how a structure can be made stronger, stiffer and more stable. **Towers, tunnels and turrets**	Create shell or frame structures using diagonal struts to strengthen them. **Mighty Metals**	Prototype shell and frame structures, showing awareness of how to strengthen, stiffen and reinforce them.	Build a framework using a range of materials to support mechanisms.	Select the most appropriate materials and frameworks for different structures, explaining what makes them strong. **Blood Heart**
Investigation	Select and use resources with support.	Select appropriate resources with growing independence.	Select the appropriate tool for a simple practical task.	Select the appropriate tool for a task and explain their choice. **Muck, mess and mixtures**	Use tools safely for cutting and joining materials and components. **Scrumdiddlyumptious, Mighty Metals**	Select, name and use tools with adult supervision. **Mighty Metals**	Name and select increasingly appropriate tools for a task and use them safely. **Allotment, Scream Machine**	Select appropriate tools for a task and use them safely and precisely.
Evaluation	Talk about what they like about their own and others work.	Share creations and explain processes they have used.	Talk about their own and each other's work, identifying strengths or weaknesses and offering support. **Moon Zoom**	Explain how closely their finished products meet their design criteria and say what they could do better in the future. **Towers, tunnels and turrets**	Suggest improvements to their products and describe how to implement them, beginning to take the views of others into account. **Scrumdiddlyumptious, Mighty Metals**	Identify what has worked well and what aspects of their products could be improved, acting on their own suggestions and those of others when making improvements. **Burps, bottoms and bile**	Test and evaluate products against a detailed design specification and make adaptations as they develop the product. **Scream Machine**	Demonstrate modifications made to a product as a result of ongoing evaluation by themselves and to others. **Blood Heart**
Food preparation and cooking	Follow and prepare simple recipes with adult support.	Understand and follow simple recipes with adult support.	Measure and weigh food items using non-standard measures, such as spoons and cups.	Prepare ingredients by peeling, grating, chopping and slicing. **Muck, mess and mixtures**	Prepare and cook a simple savoury dish. **Scrumdiddlyumptious**	Identify and use a range of cooking techniques to prepare a simple meal. **Burps, bottoms and biles, I am Warrior**	Use an increasing range of preparation and cooking techniques to cook a sweet or savoury dish. **Allotment, Scream Machine**	Follow a recipe that requires a variety of techniques and source the necessary ingredients independently. **Blood Heart**

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Nutrition	Talk about 'everyday' and 'treat' foods.	Talk about making healthy food choices.	⬜ Select healthy ingredients for a fruit or vegetable salad. **Superheroes**	⬜ Describe the types of food needed for a healthy and varied diet and apply the principles to make a simple, healthy meal.	⬜ Identify the main food groups (carbohydrates, protein, dairy, fruits and vegetables, fats and sugars). **Scrumdiddlyumptious**	⬜ Design a healthy snack or packed lunch and explain why it is healthy. **Burps, bottoms and bile**	⬜ Evaluate meals and consider if they contribute towards a balanced diet.	⬜ Plan a healthy weekly diet, justifying why each meal contributes towards a balanced diet.
Origins of food			⬜ Sort foods into groups by whether they are from an animal or plant source.	⬜ Identify the origin of some common foods (milk, eggs, some meats, common fruit and vegetables). **Muck, mess and mixtures**	⬜ Identify and name foods that are produced in different places. **Scrumdiddlyumptious**	⬜ Identify and name foods that are produced in different places in the UK and beyond.	⬜ Describe what seasonality means and explain some of the reasons why it is beneficial. **Allotment**	⬜ Explain how organic produce is grown.
Materials for purpose	Explore different materials freely to develop ideas about how to use them and what to make.	Select and explore a variety of materials. Experiment with colour and design, texture, form and function.	⬜ Select and use a range of materials, beginning to explain their choices. **Moon Zoom**	⬜ Choose appropriate components and materials and suggest ways of manipulating them to achieve the desired effect. **Towers, tunnels and turrets**	⬜ Plan which materials will be needed for a task and explain why. **Mighty metals**	⬜ Choose from a range of materials, showing an understanding of their different characteristics. **Burps bottoms and bile, I am warrior**	⬜ Select and combine materials with precision. **Allotment, Scream Machine**	⬜ Choose the best materials for a task, showing an understanding of their working characteristics.
Electricity			⬜ Identify products that use electricity to make them work and describe how to switch them on and off.	⬜ Create an operational, simple series circuit.	⬜ Incorporate a simple series circuit into a model. **Mighty Metals**	⬜ Incorporate circuits that use a variety of components into models or products.	⬜ Use electrical circuits of increasing complexity in their models or products, showing an understanding of control.	⬜ Understand and use electrical circuits that incorporate a variety of components (switches, lamps, buzzers and motors) and use programming to control their products.
Mechanisms and movement			⬜ Use wheels and axles to make a simple moving model. **Moon Zoom**	⬜ Use a range of mechanisms (levers, sliders, wheels and axles) in models or products.	⬜ Explore and use a range of mechanisms (levers, sliders, axles, wheels and cams) in models or products. **Mighty Metals**	⬜ Explore and use a range of mechanisms (levers, axles, cams, gears and pulleys) in models or products.	⬜ Use mechanical systems in their products, such as pneumatics and hydraulics. **Scream Machine**	⬜ Explain and use mechanical systems in their products to meet a design brief.
Compare and contrast	Talk about similarities and differences in everyday objects.	Sort and compare by children's observations, sometimes with adult defined categories.	⬜ Describe the similarities and differences between two products. **Moon Zoom, Superheroes**	⬜ Compare different brands of the same product and explain their similarities and differences.	⬜ Explain the similarities and difference between the work of two designers.	⬜ Create and complete a comparison table to compare two or more products. **Burps, bottoms and bile**	⬜ Survey users in a range of focus groups and compare results.	⬜ Create a detailed comparative report about two or more products or inventions. optional
Everyday products			⬜ Name and explore a range of	⬜ Explain how an everyday product	⬜ Explain how an existing product	⬜ Investigate and identify the design features of a	⬜ Explain how the design of a product has been	⬜ Analyse how an invention or product has significantly

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			everyday products and describe how they are used. **Moon Zoom**	could be improved. **Towers, tunnels and turrets**	benefits the user. **Scrumdiddlyumptious, Mighty Metals**	familiar product. **I am Warrior!**	influenced by the culture or society in which it was designed or made. **Scream Machine**	changed or improved people's lives.
Staying safe	Wash hands before food preparation and use one-handed tools and equipment safely.	Use a range of small tools, including scissors, safely and appropriately.	☐ Follow the rules to keep safe during a practical task.	☐ Work safely and hygienically in construction and cooking activities. **Muck, mess and mixtures**	☐ Use appliances safely with adult supervision. **Scrumdiddlyumptious, Mighty Metals**	Work safely with everyday chemical products under supervision, such as disinfectant hand wash and surface cleaning spray.	☐ Explain the functionality and purpose of safety features on a range of products. **Scream Machine**	☐ Demonstrate how their products take into account the safety of the user.
Significant people			☐ Describe why a product is important.	☐ Explain why a designer or inventor is important. **Towers, tunnels and turrets**	☐ Describe how key events in design and technology have shaped the world.	☐ Explain how and why a significant designer or inventor shaped the world. **I am Warrior!**	☐ Describe the social influence of a significant designer or inventor.	☐ Present a detailed account of the significance of a favourite designer or inventor.