Subject Area: DT

Knowledge/skills progression	Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Background Research	**Nursery** Continue to develop their movement, balancing, riding (scooters, trikes and bikes) and ball skills. Use large-muscle movements to wave flags and streamers, paint and make marks. Use one-handed tools and equipment, for example, making snips in paper with scissors. Use a comfortable grip with good control when holding pens and pencils. Show a preference for a dominant hand. **Reception** Develop the overall body strength, co-ordination, balance and agility needed to engage successfully with future physical education sessions and other physical disciplines.	Understand what a product is and who it is for Understand how a product works and how it is used Identify where you might find this product	Understand what a product is and who it is for Understand how a product works and how it is used Identify where you might find this product Identify the materials used to make the product Express an opinion about the product	Identify who made the product, when it was made and what its purpose is Identify what the product has been made from Evaluate the product on design and use. Research facts about famous inventors/ chefs / designers etc linked to product	Identify who made the product, when it was made and what its purpose is Identify what the product has been made from Evaluate the product on design and use Research facts about famous inventors/ chefs / designers etc linked to ground-breaking products	Identify who made the product, when it was made and what its purpose is Identify what the product has been made from and how environmentally friendly the materials are Evaluate the product on design, appearance and use Identify the cost to make the product Research facts about famous inventors/ chefs / designers etc linked to product	Identify manufacturing and purpose and how environmentally friendly the materials are Evaluate design, appearance and use Identify cost and whether it has any other purposes e.g. Leading innovation of the time, trend setting Research facts about famous inventors/ chefs / designers etc linked to product Investigate possible designs in some depth against the design criteria, displaying an awareness of constraints and the implications of changes

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	Develop their small motor skills so that they can use a range of tools competently, safely and confidently. Suggested tools: pencils for drawing and writing, paintbrushes, scissors, knives, forks and spoons.						
Developing, planning and communicating ideas Design and make	**Nursery** 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. Develop their own ideas and then decide which materials to use to express them. Choose the right resources to carry out their plan. Collaborate with others to manage large items, such as moving a long plank safely, carrying large hollow blocks. •Use all their senses in hands-on exploration of natural materials. Explore collections of materials with similar	Begin to draw on their own experience to help generate ideas Begin to develop their ideas through talk and drawings. Make templates and mock ups of their ideas using materials or ICT Use equipment safely using appropriate materials and techniques Describe how a product works With some support, begin to explore and use simple mechanisms. For example, use sliders in moving pictures, hinges into models.	Start to generate ideas by drawing on their own and other people's experiences. Begin to develop their design ideas through discussion, observation, drawing and modelling. Identify a purpose for what they intend to design and make. Understand how to identify a target group for what they intend to design and make based on a design criteria. Develop their ideas through talk and drawings and label parts. Make templates and mock ups of their ideas using materials or ICT. Select appropriate tools, techniques and	With growing confidence generate ideas for an item, considering its purpose and the user/s. Start to order the main stages of making a product. Identify a purpose and establish criteria for a successful product. Understand how well products have been designed, made, what materials have been used and the construction technique. Start to understand whether products can be recycled or reused. Know to make drawings and models with labels when designing.	Start to generate ideas, considering the purposes for which they are designing- link with Mathematics and Science. Confidently make labelled drawings/models from different views showing specific features. Develop a clear plan and suggest alternative methods of making. Identify strengths and areas for development. When planning consider the views of others, including intended users, to improve their work. When planning explain their choice of materials and components	Start to generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces. Begin to use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose. Identify the specific needs of my chosen user and evaluating it against design brief With growing confidence apply a range of finishing techniques, including those from art and design.	Accurately apply a range of finishing techniques, including those from art and design. Draw up a specification for their design- link with Mathematics and Science. Plan the order of their work, choosing appropriate materials, tools and techniques. Suggest alternative methods of making if the first attempts fail. Identify the strengths and areas for development in their ideas and products. Know how much products cost to make, how sustainable and

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	and/or different properties. Talk about what they see, using a wide vocabulary. Explore how things work. Explore and talk about different forces they can feel. Talk about the differences between materials and changes they notice. Explore different materials freely, to develop their ideas about how to use them and what to make. Join different materials and explore different textures. **Reception** Return to and build on their previous learning, refining ideas and developing their ability to represent them. Confidently and safely use a range of large and small apparatus indoors and outside, alone and in a group.		materials, explaining my choices and add features to my design Make suggestions for improvements For structures and mechanisms, develop a product that has one mechanism that connects to another that move in sync Explore and use winding mechanisms. Begin to incorporate wheels and axles into their products.	When planning explain their choice of materials and components including function and aesthetics. Choose appropriate tools, equipment, materials, components and techniques. Use tools and equipment with some accuracy to cut and shape materials	according to function and aesthetic. Identify stages of making in the design brief Choose appropriate tools, equipment, materials, components and techniques. Test materials for appropriateness of use and justify choices Evaluate my product against a design brief Identify where evaluation of the design and making process has led to improvements in the product. With increasing independence produce models that incorporate mechanical systems such as levers, linkages or pneumatic systems to create movement.	Draw up a specification for their design- link with Mathematics and Science. Use results of investigations, information sources, including ICT when developing design ideas. With growing confidence select appropriate materials, tools and techniques. Start to understand how much products cost to make, how sustainable and innovative they are and the impact products have beyond their intended purpose. Begin to consider a wider range of specialist functions Begin to understand how mechanical systems such as cams create movement. Design and make a product that incorporates a cam mechanism.	innovative they are and the impact products have beyond their intended purpose. Bearing in mind the way the product will be used, evaluate critically both the appearance and function Identify in my evaluation why I made changes to my design as it developed In structures and mechanisms, develop a product that has rotating parts and an electrical motor, such as a pulley system or cams.

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	Create collaboratively, sharing ideas, resources and skills. Explore, use and refine a variety of artistic effects to express their ideas and feelings. Create collaboratively, sharing ideas, resources and skills.						
Evaluating processes and products	**Nursery** Share their creations with adults and peers. **Reception** Show resilience and perseverance in the face of challenge. **Nursery + Reception** Developing Characteristics of Effective Learning – Playing and exploring (Children investigate and experience things, and 'have a go'.) Active learning (Children concentrate and keep on trying if they encounter difficulties and enjoy achievements.)	Start to evaluate their product by discussing how well it works in relation to the purpose (design criteria). When looking at existing products explain what they like and dislike about products and why. Begin to evaluate their products as they are developed, identifying strengths and possible changes they might make.	Evaluate their work against their design criteria. Look at a range of existing products explain what they like and dislike about products and why. Start to evaluate their products as they are developed, identifying strengths and possible changes they might make. With confidence talk about their ideas, saying what they like and dislike about them, making sure to suggest at least one improvement to their design	Start to evaluate their product against original design criteria e.g., how well it meets its intended purpose Begin to disassemble and evaluate familiar products and consider the views of others to improve them. Evaluate the key designs of individuals in design and technology has helped shape the world. For structures and mechanisms, ensure children are understanding simple pneumatic systems, developing a product that has one or more moving parts controlled by a pneumatic system	Evaluate their products carrying out appropriate tests. Start to evaluate their work both during and at the end of the assignment. Be able to disassemble and evaluate familiar products and consider the views of others to improve them. Evaluate the key designs of individuals in design and technology has helped shape the world, of both their own and others' products Combine several types of mechanisms (levers and linkages)	Start to evaluate a product against the original design specification and by carrying out tests. Evaluate their work both during and at the end of the assignment. Begin to evaluate it personally and seek evaluation from others. Evaluate the key designs of individuals in design and technology has helped shape the world.	Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests. Evaluate their work both during and at the end of the assignment. Record their evaluations using drawings with labels. Evaluate against their original criteria and suggest ways that their product could be improved. Evaluate the key designs of individuals in design and technology has helped shape the world.

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	Creating and thinking critically (Children have and develop their own ideas, make links between ideas and develop strategies for doing things.)						
Food	**Nursery** Be increasingly independent as they get dressed and undressed, for example, putting coats on and doing up zips. Be increasingly independent in meeting their own care needs, e.g., brushing teeth, using the toilet, washing and drying their hands thoroughly. Make healthy choices about food, drink, activity and toothbrushing. Regular cooking/baking related to Talk4Writing or children's interests. **Reception**	Begin to understand that all food comes from plants or animals. Explore the understanding that food has to be farmed, grown elsewhere (e.g., home) or caught. Start to understand how to name and sort foods into the five groups Begin to understand that everyone should eat at least five portions of fruit and vegetables every day. Recognise the need to wash my hands before and after preparing food Describe tastes, textures and appearance of fruit and vegetables	Know that food has to be farmed, grown elsewhere (e.g., home) or caught. Know that food comes from plants or animals. Become more confident in naming and sorting foods into the five groups in 'The Eat well plate' Know that everyone should eat at least five portions of fruit and vegetables every day Understood and applied the 'balanced plate' model for healthy eating, to the product Prepare a range of ingredients which I have selected, with decreasing assistance	Start to know that food comes from plants or animals. Know that food has to be farmed, grown elsewhere (e.g., home) or caught. Understand how to name and sort foods into the five groups in 'The Eat well plate' Know that everyone should eat at least five portions of fruit and vegetables every day. Demonstrate how to prepare simple dishes safely and hygienically, without using a heat source. Demonstrate how to use techniques such as cutting, peeling, and grating.	Understand 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. Understand 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 a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking safely and with accuracy. Know that a healthy diet is made up from a variety and balance of	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. Begin to understand that seasons may affect the food available. Understand how food is processed into ingredients that can be eaten or used in cooking. 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 that a healthy diet is made up from a	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. Understand that seasons may affect the food available. Understand how food is processed into ingredients that can be eaten or used in cooking. Design and make a product with decreasing support and guidance. Know how to prepare and cook a variety of dishes to make up a meal (bringing in meat dishes) safely and hygienically including, where appropriate,

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	Know and talk about the different factors that support their overall health and wellbeing: regular physical activity, healthy eating, toothbrushing. Manage their own personal hygiene needs. Regular cooking/baking related to Talk4Writing or children's interests.	Know how to prepare simple dishes safely and hygienically, without using a heat source. Know how to use techniques such as cutting, peeling and grating When making a product, prepare and combined ingredients	Combine the ingredients to create an appealing product. Demonstrate how to use techniques such as cutting, peeling, and grating safely and with increasing accuracy Understand when and why I need to wash my hands Demonstrate how to prepare simple dishes safely and hygienically, without using a heat source.		different food and drink is depicted in 'The Eat well plate' Know that to be active and healthy, food and drink are needed to provide energy for the body Know that a healthy diet is made up from a variety and balance of different	variety and balance of different. Choose appropriate ingredients to adapt a recipe and make a product Start to understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. Begin to understand that different food and drink contain different substances – nutrients, water and fibre – that are needed for health.	the use of a heat source. Understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. Understand the role of microorganisms in food production both helpful and harmful and how this relates to hygiene Know different food and drink contain different substances – nutrients, water and fibre – that are needed for health.