

DT Key Concepts Progression

	Key stage One	Lower Key Stage Two	Upper Key Stage Two
Develop, plan and communicate	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 in card and paper or using computers (if relevant) Begin to explain why they chose a certain material Develop their own ideas from given starting points	Develop a clear idea of what has to be done, planning how to use materials, equipment and processes and suggesting alternative methods of making: if the first attempts fail. Identify the strengths and areas for development in their ideas and products. When planning, consider the views of others (including intended users) to improve their work. Learn about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products. When planning explain their choice of materials and components according to function and aesthetic. Take account of the ideas of others when designing Produce a plan and explain it to others. Consider how to present their product in an interesting way.	Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross sectional and exploded diagrams, prototypes and pattern pieces Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose. Draw up a specification for their design- link with 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 innovative they are and the impact products have beyond their intended purpose Use market research to inform plans Convincingly justify their plan to someone else Follow and refine their initial plan if necessary Explain how their product should be stored, justifying with reasons Suggest ideas about how their product could be sold Work within a given budget
Build and apply	Begin to select tools and materials; use correct vocabulary. Build structures, exploring how they can be made stronger, stiffer and more stable With help measure, cut and score with some accuracy. Learn to use hand tools safely and	Select a wider range of tools and techniques for making their product safely. Know how to measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques. Start to join and combine materials and components accurately in temporary and permanent ways	Confidently select appropriate tools, materials, components and techniques Use tools safely and accurately Assemble components to make working models With confidence pin, sew and stitch materials together

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	appropriately Start to assemble, join and combine materials in order to make a product. Demonstrate how to cut, shape and join fabric to make a simple product. Select the best tools and materials Be able to join things (materials/ components) together in different ways Measure materials to use in a model or structure Create working circuits to light a bulb or work a buzzer	Know how mechanical systems such as pulleys or gears create movement Understand how to reinforce and strengthen a 3D framework. Sew using a range of different stitches, to weave and knit Measure carefully and show initiative to check so as not to make mistakes Persevere with their product even though their original idea might not have worked	Demonstrate when to make modifications as they go along Construct products using permanent joining techniques Combine fabric to make a high-quality product for a purpose Use a craft knife, cutting mat and safety ruler with close supervision (one to one) Make decisions and select the most appropriate mechanical system for a particular purpose
Evaluate and test	Start to evaluate a product, discussing how well it works in relation to the purpose. Identify good and bad points of their design and look at existing products and explain what they like/dislike and why. Begin to evaluate their own product as they are developed, starting to identify strengths and possible changes they might make next time Be able to discuss with some confidence how closely their own finished product met the design criteria.	Evaluate their work both during and at the end of their DT assignment Begin to evaluate their own product by carrying out some appropriate tests Be able to disassemble and evaluate familiar products and consider the views of others to improve them Begin to explore how key designs by individuals in Design and Technology have helped our world Be able to suggest improvements and say what was good and not so good about their own original design and begin to explain how they can improve it Evaluate their own product, thinking of both appearance and the way it works.	Evaluate their products, identifying strengths and areas for development, and carry out appropriate tests Evaluate their work both during and at the end of the DT assignment Record their evaluations using drawings with labels Evaluate against their own original criteria and suggest ways that their own product could be improved Evaluate how key designs by individuals in Design and Technology have helped shape our world Test and evaluate their final product and that it meets the agreed set criteria Be able to justify why they selected specific materials
Develop understanding of food and nutrition	Understand how to name and sort foods into the five groups. Know that everyone should eat at least five portions of fruit and vegetable every day. Recognise the need for a variety of food in a diet. Demonstrate how to prepare simple	Understand that food is grown, reared and caught in the UK, Europe and the wider world Understand how to prepare and cook a variety of predominantly savoury dishes including some experience of using a heat source Know how to use a range of techniques such as peeling,	Explain how ingredients were grown, reared and caught Understand that seasons may affect the food available (seasonality) Explain how food is processed into ingredients that can be eaten or used in cooking

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	dishes safely and hygienically. Demonstrate how to use techniques such as cutting, grating and peeling. Make dishes from other countries.	chopping, slicing, grating, mixing, spreading, kneading and baking Measure and weigh ingredients appropriately Explain why a healthy diet is important Know that to be active and healthy, food and drink are needed to provide energy for the body and identify healthy energy food Understand what to do to be hygienic and safe Become familiar with some of the processes that foods go through to preserve them/make them more appealing	Know how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including the use of heat source Understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking Know different food and drink contain different substances (nutrients, water and fibre) that are needed for health Use appropriate tools and equipment, weighing and measuring with scales Plan a healthy and affordable diet
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