



Progression of Skills- Design Technology

	EYFS	Year 1	Year 2	End of KS	Year 3	Year 4	Year 5	Year 6	End of KS
DESIGN: <i>Developing, planning and communicating ideas.</i> Colour Code: Generating ideas Purpose Communicate Plan Steps	Explore the world around them Use contexts set by the teacher and myself Use gestures, talking and arrangements of materials and components to show design Select appropriate resources	Draw on their own experience to help generate ideas Research similar products Explain what product is for and how it will work Use pictures and words to plan Model their ideas in card and paper design a product for myself following design criteria	Generate own ideas and plan next steps Use existing products to produce ideas Identify a purpose for what they intend to design and make Identify simple design criteria Develop their design ideas through discussion, observation, drawing and modelling, begin to use ICT Make simple drawings and label parts explain what I want to do and describe how I may do it choose best tools and materials, and explain choices	<i>Design purposeful, functional, appealing products for themselves and other users based on design criteria</i> <i>Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</i>	Generate ideas for an item, considering its purpose and the user/s have at least one idea about how to create product Identify a purpose and establish criteria for a successful product. Plan the order of their work before starting begin to research others' needs Make drawings with labels when designing Explore, develop and show design meets a range of requirements create a plan which shows order, equipment and tools describe design using an accurately labelled sketch and words make design decisions explain how product will work make a prototype begin to use computers to show design	Generate ideas, considering the purposes for which they are designing 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 Make labelled drawings from different views showing specific features *have at least one idea about how to create product and suggest improvements for design. produce a plan and explain it to others say how realistic plan is. include an annotated sketch make and explain design decisions considering availability of resources explain how product will work make a prototype begin to use computers to show design.	Generate ideas through brainstorming and identify a purpose for their product Use results of investigations, information sources, including ICT when developing design ideas 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 take a user's view into account when designing begin to consider needs/wants of individuals/groups when designing and ensure product is fit for purpose create own design criteria have a range of ideas produce a logical, realistic plan and explain it to others. use research for design ideas show design meets a range of requirements and is fit for purpose begin to create own design criteria have at least one idea about how to create product and suggest improvements for design. decisions considering availability of resources explain how product will work make a prototype and refine design ideas begin to use computers to show design. use cross-sectional planning and annotated sketches and explain to others clearly explain how parts of product will work. use computer-aided designs	Draw on market research to inform design Explore, develop and communicate aspects of their design proposals by modelling their ideas in a variety of ways Communicate their ideas through detailed labelled drawings Develop a design specification Plan the order of their work, choosing appropriate materials, tools and techniques follow and refine a logical plan. Use annotated sketches, cross-sectional planning and exploded diagrams make design decisions, considering, resources and cost clearly explain how parts of design will work, and how they are fit for purpose independently model and refine design ideas by making prototypes and using pattern pieces use computer-aided designs	Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design
Make: Working with tools, equipment, materials and component	Construct with a purpose, using a variety of resources Use simple tools and techniques Build/construct with a wide range of objects	Make their design using appropriate techniques With help measure, mark out, cut and shape a range of materials Use tools eg scissors and a hole punch safely	Begin to select tools and materials; use vocab' to name and describe them Measure, cut and score with some accuracy Use hand tools safely and appropriately		Select tools and techniques for making their product Measure, mark out, cut, score and assemble components with more accuracy Work safely and accurately with a range of simple tools Think about their ideas as they make progress and be willing change things if this helps them improve their work	Select appropriate tools and techniques for making their product Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques Join and combine materials and components accurately in temporary and permanent ways Sew using a range of different stitches, weave and knit	Select appropriate materials, tools and techniques Measure and mark out accurately Use skills in using different tools and equipment safely and accurately Weigh and measure accurately (time, dry ingredients, liquids) Apply the rules for basic food hygiene and other safe practices	Select appropriate tools, materials, components and techniques Assemble components make working models Use tools safely and accurately Construct products using permanent joining techniques Make modifications as they go along	

<i>s to make quality product inc food</i>	Select tools & techniques to shape, assemble and join Replicate structures with materials/components Discuss how to make an activity safe and hygienic Record experiences by drawing, writing and voice recording Understand different media can be combined for a purpose	Assemble, join and combine materials and components together using a variety of temporary methods e.g. glues or masking tape Select and use appropriate fruit and vegetables, processes and tools Use basic food handling, hygienic practices and personal hygiene Use simple finishing techniques to improve the appearance of their product	Assemble, join and combine materials in order to make a product Cut, shape and join fabric to make a simple garment. Use basic sewing techniques Follow safe procedures for food safety and hygiene Choose and use app		Measure, tape or pin, cut and join fabric with some accuracy Demonstrate hygienic food preparation and storage Use finishing techniques strengthen and improve the appearance of their product using a range of equipment including ICT	Measure, tape or pin, cut and join fabric with some accuracy Use simple graphical communication techniques	e.g. hazards relating to the use of ovens Cut and join with accuracy to ensure a good-quality finish to the product	Pin, sew and stitch materials together create a product Achieve a quality product	
Evaluate	Adapt if necessary Dismantle, examine, talk about existing objects/structures Consider and manage some risks Practise some appropriate safety measures indep. Talk about how things work Look at similarities and differences between existing obj/materials/tools Show an interest in technological toys Describe textures	Evaluate their product by discussing how well it works in relation to the purpose Evaluate their products as they are developed, identifying strengths and possible changes they might make Talk about their ideas, saying what they like and dislike about it	Evaluate against their design criteria Evaluate their products as they are developed, identifying strengths and possible changes they might make Talk about their ideas, saying what they like and dislike about them		Evaluate their product against original design criteria e.g. how well it meets its intended purpose Disassemble and evaluate familiar products	Evaluate their work both during and at the end of the assignment Evaluate their products carrying out appropriate tests	Evaluate a product against the original design specification Evaluate it personally and seek evaluation from others	Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests Record their evaluations using drawings with labels Evaluate against their original criteria and suggest ways that their product could be improved	
Tech Knowledge Material s/Struct ures	begin to join materials with support build structures using a range of materials	begin to measure and join materials, with some support describe differences in materials suggest ways to make material/product stronger	measure materials describe some different characteristics of materials join materials in different ways use joining, rolling or folding to make it stronger use own ideas to try to make product stronger	<i>Build structures, exploring how they can be made stronger, stiffer and more stable</i>	use appropriate materials work accurately to make cuts and holes join materials *begin to make strong structures	measure carefully to avoid mistakes attempt to make product strong continue working on product even if original didn't work make a strong, stiff structure	select materials carefully, considering intended use of product and appearance explain how product meets design criteria measure accurately enough to ensure precision ensure product is strong and fit for purpose begin to reinforce and strengthen a 3D frame	select materials carefully, considering intended use of the product, the aesthetics and functionality. explain how product meets design criteria reinforce and strengthen a 3D frame	<i>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures</i>
Technical knowledge - Mechanisms	Explore moving parts	begin to use levers or slides how to use wheels and axles	use levers or slides begin to understand how to use wheels and axles	<i>Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products</i>	select some appropriate tools / techniques Begin to explain alterations to product after checking it use levers and linkages to create movement use pneumatics to create movement	select most appropriate tools / techniques explain alterations to product after checking it grow in confidence about trying new / different ideas. use levers and linkages to create movement use pneumatics to create movement	refine product after testing grow in confidence about trying new / different ideas begin to use cams, pulleys or gears to create movement	refine product after testing, considering aesthetics, functionality and purpose incorporate hydraulics and pneumatics be confident to try new / different ideas use cams, pulleys and gears to create movement	<i>Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</i>
Technical	Cut, fold and explore using fabrics in projects	measure, cut and join textiles to make a product, with some support	measure textiles join textiles together to make a product, and explain how I did it		join different textiles in different ways choose textiles considering appearance and functionality	think about user when choosing textiles think about how to make product strong begin to devise a template	think about user and aesthetics when choosing textiles use own template think about how to make product strong and look better	think about user's wants/needs and aesthetics when choosing textiles make product attractive and strong make a prototype	

[illegible]