



Skills progression Design Technology

Strand	Year 1	Year 2	Year 3/4	Year 5/6
Design <i>Developing, planning and communicating ideas.</i>	design purposeful, functional, appealing products for themselves and other users based on design criteria generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology		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	
	I can follow verbal instructions. I can describe what I'm making and how I'm making it. I can decide what materials and tools to use. I can say what I need to do next. I can use pictures and words to help me to develop my ideas. I can use what I know about familiar objects to give me ideas for my own work.	I can choose the right tools, materials and techniques.. I can describe my models and drawings of my plans as they develop. I can use what I know about working with materials to help me think of my own ideas. I can explain and further my ideas when asked. I can use models, kits, pictures and words to help me in my design. I can look at ideas and choose the best way to do things.	I can investigate products, to give me a starting point for a design. I can record the plan by drawing (labelled sketches) or writing. I can add notes to drawings to help explain. I can develop and adapt my design. I can plan a sequence of actions to make a product. I can make realistic suggestions how I can achieve their design ideas. I can draw/sketch products to understand how products are made. I can think ahead about the order of my work and decide upon tools and materials.	I can investigate products and images to collect ideas. I can use models, kits and drawings to help formulate design ideas. I can make prototypes. I can use found information to inform decisions. I can plan the sequence of work using a storyboard. I can record my ideas using annotated diagrams. I can sketch and model alternative ideas. I can develop one idea in depth. I can combine modelling and drawing to refine ideas. I can use a computer to model ideas. I can draw plans which can be read and followed by someone else. I can give a report using correct technical vocabulary.
Make <i>Producing quality products</i>	select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics		select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities	



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<p><i>Food</i></p>	<p>I can describe food by the smell, taste, texture and feel.</p> <p>I can group familiar food products, e.g. fruits and vegetables.</p> <p>I can measure and weigh food items, e.g. non-statutory measures.</p>	<p>I can cut, peel, grate and chop a range of ingredients.</p> <p>I can work safely and hygienically.</p> <p>I understand the need for a variety of foods in a diet.</p>	<p>I can develop sensory vocabulary/knowledge using, smell, taste, texture and feel.</p> <p>I can follow instructions when working with food.</p> <p>I can work safely and hygienically.</p> <p>I can analyse the taste, texture, smell and appearance of a range of foods.</p> <p>I can make healthy eating choices from an understanding of a balanced diet.</p> <p>I can join and combine a range of ingredients e.g. snack foods.</p> <p>I can measure and weigh ingredients appropriately.</p>	<p>I can taste a range of ingredients, food items to develop a sensory food vocabulary for use when designing.</p> <p>I can select and prepare foods for a particular purpose.</p> <p>I can weigh and measure using scales.</p> <p>I can cut and shape ingredients using appropriate tools and equipment e.g. grating</p> <p>I can work safely and hygienically.</p> <p>I can prepare food products taking into account the properties of ingredients and sensory characteristics.</p> <p>I can join and combine food ingredients appropriately e.g. beating, rubbing in.</p> <p>I can decorate appropriately.</p> <p>I can show an awareness of a healthy diet from an understanding of a balanced diet.</p>
<p><i>Textiles</i></p>	<p>I can draw round a template, cut out shapes from fabric.</p> <p>I can decorate fabrics e.g. with buttons, beads, sequins, etc.</p>	<p>I can join fabrics using a range of techniques, e.g. running stitch, glue, staples, over sewing and tape.</p> <p>I can colour fabrics using a range of techniques, e.g. fabric paints, printing, painting.</p>	<p>I can join fabrics using running stitch, over sewing, back stitch.</p> <p>I can understand the need for patterns.</p> <p>I can make a prototype, e.g. using J cloths.</p> <p>I can understand seam allowance.</p> <p>I can explore fastenings and recreate some, e.g. sew on buttons and make loops.</p> <p>I can create a simple pattern.</p> <p>I can use appropriate decoration techniques e.g. appliqué (glued or simple stitches).</p>	<p>I can understand pattern layout.</p> <p>I can decorate textiles appropriately often before joining components.</p> <p>I can pin and tack fabric pieces together.</p> <p>I can make quality products.</p> <p>I can create 3D products using pattern pieces and seam allowance.</p> <p>I can join fabrics using over sewing, back stitch, blanket stitch or machine stitching (closer supervision)</p> <p>I can combine fabrics to create more useful</p>



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				properties.
<i>Construction</i>	<p>I can make vehicles with construction kits.</p> <p>I know the best joining materials to use for different situations e.g. glue, tape.</p> <p>I can mark out materials to be cut using a template.</p>	<p>I can use a range of materials to create models with wheels and axles e.g. tubes, dowel, cotton reels.</p> <p>I can attach wheels to a chassis using an axle.</p> <p>I can cut strip wood/dowel using hacksaw and bench hook.</p>	<p>I can make structures more stable by giving them a wide base.</p> <p>I can create shell or frame structures and strengthen frames with diagonal struts.</p> <p>I can incorporate a circuit with a bulb or buzzer into a model.</p> <p>I can make prototype frame and shell structures.</p> <p>I can measure and mark square selection, strip and dowel accordingly to 1cm.</p> <p>I can use a glue gun with an adult.</p>	<p>I can use a bradawl to mark hole positions.</p> <p>I can join materials using appropriate methods.</p> <p>I can use a cam to make an up and down mechanism.</p> <p>I can use a glue gun with close supervision.</p> <p>I can use a hand drill to drill tighten and loosen fit holes.</p> <p>I can cut strip wood, dowel, square section wood accurately to 1mm.</p> <p>I can incorporate motors and switches into a model.</p> <p>I can control a model using an ICT control programme</p> <p>I can build frameworks using a range of materials e.g. wood, card corrugated plastic to support mechanisms.</p>
<i>Sheet materials</i>	<p>I can fold, tear and cut paper and card.</p> <p>I can roll paper to create tubes.</p> <p>I can cut along straight and curved lines.</p> <p>I can curl paper.</p>	<p>I can use hole punch.</p> <p>I can create hinges.</p> <p>I can use simple pop ups.</p> <p>I can investigate how to strengthen sheet materials.</p> <p>I can investigate temporary, fixed and moving joins, e.g. paper fasteners.</p>	<p>I can cut slots.</p> <p>I can use lolly sticks/card to make levers and linkages.</p> <p>I can use and explore complex pop ups.</p> <p>I can cut internal shapes.</p> <p>I can use linkages to make movements larger or more varied.</p> <p>I can create nets.</p>	<p>I can cut accurately and safely to a marked line.</p> <p>I can choose an appropriate sheet material for the purpose.</p> <p>I can join and combine materials with temporary, fixed or moving joins.</p> <p>I can use a craft knife, cutting mat and safety ruler under one to one supervision if appropriate.</p>



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<p>Evaluate</p>	<p>explore and evaluate a range of existing products evaluate their ideas and products against design criteria</p>		<p>investigate and analyse a range of existing products evaluate their ideas and products against their own design criteria and consider the views of others to improve their work understand how key events and individuals in design and technology have helped shape the world</p>	
	<p>I can talk about what I've done and what I've made.</p> <p>I can say what I will do better next time.</p> <p>I can evaluate what I've made, taking into account how well I've made it, what it is for and who will use it.</p> <p>I can say how I changed and improved my design and my work as I went along.</p>		<p>I can decide which design idea to develop.</p> <p>I can consider and explain how my finished product could be improved.</p> <p>I can find the strengths and weaknesses of my design ideas.</p> <p>I can discuss how well the finished product meets the design criteria and how well it meets the needs of the user.</p> <p>I can identify what does and does not work in the product.</p> <p>I can make suggestions as how my design could be improved.</p> <p>I can use the design criteria to inform my decisions about ways to proceed.</p> <p>I can justify my decisions about materials and methods of construction.</p> <p>I can reflect on my work using design criteria stating how well the design fits the needs of the user.</p>	
<p>Technical knowledge</p>	<p>build structures, exploring how they can be made stronger, stiffer and more stable explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</p>		<p>apply their understanding of how to strengthen, stiffen and reinforce more complex structures understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] apply their understanding of computing to program, monitor and control their products.</p>	
<p>Subject content coverage</p>				