



Progression of Skills and Knowledge for DT

Developing, Planning and communicating ideas

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> -Explain what they are making -Shows two-channelled attention – can listen and do for a short amount of time. - Responds to instructions involving a two-part sequence. - Listens and responds to ideas expressed by others in conversation or discussion. -Uses talk to organise, sequence and clarify thinking, ideas, feelings and events. 	<ul style="list-style-type: none"> -Follow verbal instructions -Explain what they are making and which materials they are using -Name the tools they are using -Describe what they need to do next -Select materials from a limited range that will meet the design criteria -Explore ideas by rearranging materials -Model ideas with kits, reclaimed materials -Select pictures to help develop ideas 	<ul style="list-style-type: none"> -Select appropriate technique explaining First.....Next.....Last.... -Select and name the tools needed to work the materials -Use pictures and words to convey what they want to design and make -Describe their models and drawings of ideas and intentions -Use kits/reclaimed materials to develop an idea -Discuss their work as it progresses -Add notes to drawings to help explanations 	<ul style="list-style-type: none"> -Investigate similar products to the one to be made to give starting points for a design -Draw/sketch products to help analyse and understand how products are made -Plan a sequence of actions to make a product -Record the plan by drawing (labelled sketches) or writing 	<ul style="list-style-type: none"> -Think ahead about the order of their work and decide upon tools and materials -Develop more than one design or adaptation of an initial design -Propose realistic suggestions as to how they can achieve their design ideas 	<ul style="list-style-type: none"> - Investigate products/images to collect ideas -Sketch and model alternative ideas -Develop one idea in depth -Combine modelling and drawing to refine ideas -Plan the sequence of work using a storyboard -Record ideas using annotated diagrams -Use a computer to model ideas 	<ul style="list-style-type: none"> -Use models, kits and drawings to help formulate design ideas -Make prototypes -Use found information to inform decisions -Draw plans which can be read/followed by someone else -Give a report using correct technical vocabulary



	-Use drawings to record ideas as they are developed					
Related National Curriculum Objectives in italics:	<i>Design - 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>	<i>Design - 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</i> <i>-generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</i>				

Food

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Peel hand, e.g. satsuma, banana</p> <p>Mix/stir - to loosely combine Ingredients</p> <p>Spoon - ingredients between containers</p> <p>Measure - using a spoon, e.g. flour, dried fruit - count ingredients e.g. peas</p> <p>Cut - soft foods with butter knife, e.g. banana, strawberries -Shows increasing control over an objects including pushing and pulling it.</p>	<p>Peel - with a swivel peeler with adult support</p> <p>Spread - soft ingredients, e.g. jam</p> <p>Snip - fresh herbs, spring onions</p> <p>Grate - soft foods, e.g. cheese, cucumber</p> <p>Cut - low resistance foods with a table knife in to equal size pieces/slices, e.g. canned pineapple slices, sticks of pepper, mushrooms - use a fork to secure foods</p>	<p>Peel - with a swivel peeler with adult support</p> <p>Juice - using a juicer to extract juice, e.g. orange</p> <p>Measure - using different size measuring spoons, e.g. Liquids - refer to ingredients in simple fractions, e.g. half, quarter</p> <p>Thread - thread soft foods onto cocktail sticks, e.g. fruit kebab – strawberries, satsuma segments</p> <p>Cut - low resistance foods with a table knife in</p>	<p>Peel - with a swivel peeler with supervision</p> <p>Spread - ingredients evenly over another food</p> <p>Grate - firmer foods, e.g. carrots, apples</p> <p>Snip - with greater dexterity and control, e.g. to shred lettuce or cabbage leaves for salad</p> <p>Cut out - placing the cutter in positions to make good of the material available and avoid waste</p> <p>Cut</p>	<p>Press - using a garlic press</p> <p>Peel - with a swivel peeler with supervision</p> <p>Mix/stir - any ingredients thoroughly - whisk foods using a hand whisk</p> <p>Spoon - be able to use two spoons to transfer ingredients into different size/shape containers with minimal spillage</p> <p>Measure - using measuring jug & digital or analogue scales with support to obtain accuracy</p> <p>Grate</p>	<p>Mix/stir - fold ingredients together carefully</p> <p>Spoon - be able to gauge the quantities spooned to ensure an equal amount of ingredient in each container</p> <p>Measure - using a measuring jug independently and accurately - using digital or analogue scales accurately and independently</p> <p>Grate - using the zesting part of a grater, e.g. lemon, orange - use a nutmeg grater</p>	<p>Peel - with a swivel peel to create food ribbons to be used in a dish, e.g. courgette/carrot ribbons with supervision</p> <p>Measure - using a measuring jug independently and accurately - using digital and analogue scales accurately and independently</p> <p>Grate - using the zesting part of a grater, e.g. lemon, orange - use a nutmeg grater</p> <p>Thread</p>



<p>-Children show good control and co-ordination in large and small movements.</p>		<p>to equal size pieces/slices, e.g. canned pineapple slices, sticks of pepper, mushrooms - use a fork to secure foods</p>	<p>- medium resistance foods with a vegetable knife, e.g. cucumber. - use a fork or the claw grip to secure foods - medium resistant or partly prepared foods using a bridge hold, e.g. cut half a tomato into a quarter, halve large grapes Shape and mould - to create visually appealing products e.g. mini cottage loaf or plait, wrap</p>	<p>- firmer foods, e.g. carrots, apples Snip - with greater dexterity & control, e.g. shred lettuce or cabbage leaves Cut - higher resistance food with a vegetable knife, using the claw grip, e.g. celery, carrots - higher resistant foods from whole using the bridge hold, e.g. halve an apple, raw potato</p>		<p>- higher resistance foods onto kebab sticks, e.g. peppers, onions Cut - higher resistance food with a vegetable knife, using the claw grip, e.g. celery, carrots - higher resistant foods from whole using the bridge hold, e.g. halve an apple, raw potato</p>
<p>Related National Curriculum Objectives in italics:</p>	<p><i>- use the basic principles of a healthy and varied diet to prepare dishes -understand where food comes from.</i></p>		<p><i>- understand and apply the principles of a healthy and varied diet -prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques - understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</i></p>			
<p>Textiles</p>						
<p>EYFS</p>	<p>Year 1</p>	<p>Year 2</p>	<p>Year 3</p>	<p>Year 4</p>	<p>Year 5</p>	<p>Year 6</p>
<p>- Children know about similarities and differences in relation to objects and materials. - Experiments to create different textures.</p>	<p>- Colour fabrics using a range of techniques e.g. fabric paints, printing, painting -Cut out shapes which have been created by drawing round a template onto the</p>	<p>- Join fabrics by using glue, staples or tape -Decorate fabrics with buttons, beads, sequins, braids, ribbons</p>	<p>- Join fabrics using running stitch, over sewing, back stitch - Explore fastenings and recreate some e.g. sew on buttons and make loops -Use appropriate decoration</p>		<p>-Create 3D products using pattern pieces and seam allowance -Understand pattern layout -Decorate textiles appropriately often before joining components</p>	



<ul style="list-style-type: none"> - Manipulates materials to achieve a planned effect. - Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. 	<p>fabric</p>		<ul style="list-style-type: none"> techniques e.g. appliqué (glued or simple stitches) - Create a simple pattern - Understand the need for patterns 		<ul style="list-style-type: none"> - Pin and tack fabric pieces together - Join fabrics using over sewing, back stitch or blanket stitch - Combine fabrics to create more useful properties - Make quality products 	
<p>Related National Curriculum Objectives in italics:</p>	<p><i>Make -select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</i> <i>- select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</i></p>		<p><i>Make - select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</i> <i>-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</i></p>			
Construction						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> - Uses simple tools to effect changes to materials. - Handles tools, construction and malleable materials safely and with increasing control. 	<ul style="list-style-type: none"> - Make vehicles with construction kits which contain free running wheels - Use a range of materials to create models with wheels and axles e.g. tubes, dowel, cotton reels - Attach wheels to a chassis using an axle 	<ul style="list-style-type: none"> - Join appropriately for different materials and situations e.g. glue, tape, - Mark out materials to be cut using a template - With an adult use a glue gun. 	<ul style="list-style-type: none"> Make structures more stable by giving them a wide base - Prototype frame structures - Measure and mark square selection, strip and dowel accordingly to 1cm - Use glue gun with close supervision (one to one) 	<ul style="list-style-type: none"> - Incorporate a circuit with a bulb or buzzer into a model - Create shell or frame structures, strengthen frames with diagonal struts 	<ul style="list-style-type: none"> - Use bradawl to mark hole positions - Cut strip wood, dowel, square section wood accurately to 1mm - Join materials using appropriate methods - Incorporate motor and a switch into a model - Control a model using a simple control programme 	<ul style="list-style-type: none"> - Control a model using an ICT control programme - Build frameworks using a range of materials e.g. wood, card corrugated plastic to support mechanisms - Use glue gun with close supervision - Use a basic CAM mechanism to design a moving toy.



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<p>Related National Curriculum Objectives in italics:</p>	<p>Make -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 Technical knowledge - 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>Make -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 Technical knowledge -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>
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Sheet Materials

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>- Uses simple tools to effect changes to materials. -Handles tools, construction and malleable materials safely and with increasing control.</p>	<p>-Fold, tear and cut paper and card -Roll paper to create tubes -Cut along lines, straight and curved -Curl paper - Use hole punch</p>	<p>- Insert paper fasteners for card linkages -Use lolly sticks/card to make levers and linkages -Create hinges -Investigate strengthening sheet materials -Investigate joinings temporary, fixed and moving</p>	<p>-Cut slots -Cut internal shapes</p>	<p>- Use linkages to make movement larger or more varied. -Use and explore complex pop ups</p>	<p>-Cut slots -Cut accurately and safely to a marked line -Join and combing materials with temporary, fixed or moving joints.</p>	<p>-Use craft knife, cutting mat and safety ruler under one to one supervision if appropriate -Choose an appropriate sheet material for the purpose -Create nets</p>

<p>Related National Curriculum Objectives in italics:</p>	<p>Make -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</p>	<p>Make -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 Technical knowledge -apply their understanding of how to strengthen, stiffen and reinforce more complex structures</p>
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	<p>construction materials, textiles and ingredients, according to their characteristics</p> <p>Technical knowledge - build structures, exploring how they can be made stronger, stiffer and more stable</p> <p>-explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</p>		<p>-understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</p>			
Evaluating						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>- achieving what they set out to achieve.</p> <p>-Show satisfaction in meeting their own goals.</p> <p>-Being proud of how they accomplished something – not just the end results.</p> <p>-Enjoy meeting challenges for their own sake rather than external rewards or praise.</p>	<p>-Say what they like and do not like about items they have made and attempt to say why</p> <p>-Talk about changes made during the making process</p> <p>-Discuss how closely their finished products meet their design criteria</p>	<p>-Explore what existing products are/what for/how they work/how they are used/materials used/likes and dislikes about a product</p> <p>-Talk about their designs as they develop and identify good and bad points</p>	<p>- Identify the strengths and weaknesses of their design ideas</p> <p>-Decide which design idea to develop</p> <p>-Consider and explain how the finished product could be improved</p>	<p>-Discuss how well the finished product meets the design criteria and how well it meets the needs of the user.</p>	<p>-Use the design criteria to inform their decisions about ways to proceed</p> <p>- Justify their decisions about materials and methods of construction</p> <p>- Make suggestions as how their design could be improved</p>	<p>- Identify what does and does not work in the product and suggest improvements.</p> <p>-Reflect on their work using design criteria stating how well the design fits the needs of the user</p>
<p>Related National Curriculum Objectives in italics:</p>	<p>Evaluate - explore and evaluate a range of existing products</p> <p>-evaluate their ideas and products against design criteria</p>		<p>Evaluate -investigate and analyse a range of existing products</p> <p>-evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</p> <p>- understand how key events and individuals in design and technology have helped shape the world</p>			