



**PROGRESSION OF SKILLS AND KNOWLEDGE FOR DT (DESIGN TECHNOLOGY)**

**DEVELOPING, PLANNING and COMMUNICATING IDEAS**

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

**FOOD**

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p><b>Peel</b></p> <ul style="list-style-type: none"> <li>hand, e.g. satsuma, banana</li> </ul> <p><b>Mix/stir</b></p> <ul style="list-style-type: none"> <li>to loosely combine ingredients</li> </ul> <p><b>Spoon</b></p> <ul style="list-style-type: none"> <li>ingredients between containers</li> </ul> <p><b>Measure</b></p> <ul style="list-style-type: none"> <li>using a spoon, e.g. flour, dried fruit</li> <li>count ingredients e.g. peas</li> </ul> <p><b>Cut</b></p> <ul style="list-style-type: none"> <li>soft foods with butter knife, e.g. banana, strawberries</li> <li>Shows increasing control over an object including pushing and pulling it.</li> <li>Children show good control and co-ordination in large and small movements.</li> </ul>	<p><b>Peel</b></p> <ul style="list-style-type: none"> <li>with a swivel peeler with adult support</li> </ul> <p><b>Spread</b></p> <ul style="list-style-type: none"> <li>soft ingredients, e.g. jam</li> </ul> <p><b>Snip</b></p> <ul style="list-style-type: none"> <li>fresh herbs, spring onions</li> </ul> <p><b>Grate</b></p> <ul style="list-style-type: none"> <li>soft foods, e.g. cheese, cucumber</li> </ul> <p><b>Cut</b></p> <ul style="list-style-type: none"> <li>low resistance foods with a table knife in to equal size pieces/ slices, e.g. canned pineapple slices, sticks of pepper, mushrooms</li> <li>use a fork to secure foods</li> </ul>	<p><b>Peel</b></p> <ul style="list-style-type: none"> <li>with a swivel peeler with adult support</li> </ul> <p><b>Juice</b></p> <ul style="list-style-type: none"> <li>using a juicer to extract juice, e.g. orange</li> </ul> <p><b>Measure</b></p> <ul style="list-style-type: none"> <li>using different size measuring spoons, e.g. Liquids</li> <li>refer to ingredients in simple fractions, e.g. half, quarter</li> </ul> <p><b>Thread</b></p> <ul style="list-style-type: none"> <li>thread soft foods onto cocktail sticks, e.g. fruit kebab - strawberries, satsuma segments</li> </ul> <p><b>Cut</b></p> <ul style="list-style-type: none"> <li>low resistance foods with a table knife in to equal size pieces/slices, e.g. canned pineapple slices, sticks of pepper, mushrooms</li> <li>Use a fork to secure foods</li> </ul>	<p><b>Peel</b></p> <ul style="list-style-type: none"> <li>with a swivel peeler with supervision</li> </ul> <p><b>Spread</b></p> <ul style="list-style-type: none"> <li>ingredients evenly over another food</li> </ul> <p><b>Grate</b></p> <ul style="list-style-type: none"> <li>firmer foods, e.g. carrots, apples</li> </ul> <p><b>Snip</b></p> <ul style="list-style-type: none"> <li>with greater dexterity and control, e.g. to shred lettuce or cabbage leaves for salad</li> </ul> <p><b>Cut out</b></p> <ul style="list-style-type: none"> <li>placing the cutter in positions to make good of the material available and avoid waste</li> </ul> <p><b>Cut</b></p> <ul style="list-style-type: none"> <li>medium resistance foods with a vegetable knife, e.g. cucumber.</li> <li>Use a fork or the claw grip to secure foods medium resistant or partly prepared foods using a <b>bridge</b> hold, e.g. cut half a tomato into a quarter, halve large grapes</li> </ul>	<p><b>Press</b></p> <ul style="list-style-type: none"> <li>using a garlic press</li> </ul> <p><b>Peel</b></p> <ul style="list-style-type: none"> <li>with a swivel peeler with supervision</li> </ul> <p><b>Mix/stir</b></p> <ul style="list-style-type: none"> <li>any ingredients thoroughly whisk foods using a hand whisk</li> </ul> <p><b>Spoon</b></p> <ul style="list-style-type: none"> <li>be able to use two spoons to transfer ingredients into different size/ shape containers with minimal spillage</li> </ul> <p><b>Measure</b></p> <ul style="list-style-type: none"> <li>using measuring jug &amp; <b>digital or analogue scales</b> with support to obtain accuracy</li> </ul> <p><b>Grate</b></p> <ul style="list-style-type: none"> <li>firmer foods, e.g. carrots, apples</li> </ul> <p><b>Snip</b></p> <ul style="list-style-type: none"> <li>with greater dexterity &amp; control, e.g. shred lettuce or cabbage leaves</li> </ul> <p><b>Cut</b></p> <ul style="list-style-type: none"> <li>higher resistance food with a vegetable knife, using the claw grip, e.g. celery, carrots</li> </ul>	<p><b>Mix/stir</b></p> <ul style="list-style-type: none"> <li>fold ingredients together carefully</li> </ul> <p><b>Spoon</b></p> <ul style="list-style-type: none"> <li>be able to gauge the quantities spooned to ensure an equal amount of ingredient in each container</li> </ul> <p><b>Measure</b></p> <ul style="list-style-type: none"> <li>using a measuring jug independently and accurately using digital or analogue scales accurately and independently</li> </ul> <p><b>Grate</b></p> <ul style="list-style-type: none"> <li>using the zesting part of a grater, e.g. lemon, orange</li> <li>use a nutmeg grater</li> </ul> <p><b>Thread</b></p> <ul style="list-style-type: none"> <li>higher resistance foods onto kebab sticks, e.g. peppers, onions</li> </ul> <p><b>Cut</b></p> <ul style="list-style-type: none"> <li>higher resistance food with a vegetable knife, using the claw grip, e.g. celery, carrots</li> <li>higher resistant foods from whole using the bridge hold, e.g. halve an apple, raw potato</li> </ul>	<p><b>Peel</b></p> <ul style="list-style-type: none"> <li>with a swivel peel to create food ribbons to be used in a dish, e.g. courgette/carrot ribbons with supervision</li> </ul> <p><b>Measure</b></p> <ul style="list-style-type: none"> <li>using a measuring jug independently and accurately using digital and analogue scales accurately and independently</li> </ul> <p><b>Grate</b></p> <ul style="list-style-type: none"> <li>using the zesting part of a grater, e.g. lemon, orange</li> <li>use a nutmeg grater</li> </ul> <p><b>Thread</b></p> <ul style="list-style-type: none"> <li>higher resistance foods onto kebab sticks, e.g. peppers, onions</li> </ul> <p><b>Cut</b></p> <ul style="list-style-type: none"> <li>higher resistance food with a vegetable knife, using the claw grip, e.g. celery, carrots</li> <li>higher resistant foods from whole using the bridge hold, e.g. halve an apple, raw potato</li> </ul>

			<b>Shape and mould</b> <ul style="list-style-type: none"> <li>to create visually appealing products e.g. mini cottage loaf or plait, wrap</li> </ul>	<ul style="list-style-type: none"> <li>higher resistant foods from whole using the bridge hold, e.g. halve an apple, raw potato</li> </ul>		
<b>Related National Curriculum Objectives</b>	<ul style="list-style-type: none"> <li><i>use the basic principles of a healthy and varied diet to prepare dishes</i></li> <li><i>understand where food comes from.</i></li> </ul>	<ul style="list-style-type: none"> <li><i>understand and apply the principles of a healthy and varied diet</i></li> <li><i>prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</i></li> <li><i>understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</i></li> </ul>				

**TEXTILES**

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> <li>• Children know about similarities and differences in relation to objects and materials.</li> <li>• Experiments to create different textures.</li> <li>• Manipulates materials to achieve a planned effect.</li> <li>• Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</li> </ul>	<ul style="list-style-type: none"> <li>• Colour fabrics using a range of techniques e.g. fabric paints, printing, painting</li> <li>• Cut out shapes which have been created by drawing round a template onto the fabric</li> </ul>	<ul style="list-style-type: none"> <li>• Join fabrics by using glue, staples or tape</li> <li>• Decorate fabrics with buttons, beads, sequins, braids, ribbons</li> </ul>		<ul style="list-style-type: none"> <li>• Join fabrics using running stitch, over sewing, back stitch</li> <li>• Explore fastenings and recreate some e.g. sew on buttons and make loops</li> <li>• Use appropriate decoration techniques e.g. appliqué (glued or simple stitches)</li> <li>• Create a simple pattern</li> <li>• Understand the need for patterns</li> </ul>	<ul style="list-style-type: none"> <li>• Create 3D products using pattern pieces and seam allowance</li> <li>• Understand pattern layout</li> <li>• Decorate textiles appropriately often before joining components</li> </ul>	<ul style="list-style-type: none"> <li>• Create 3D products using pattern pieces and seam allowance</li> <li>• Understand pattern layout</li> <li>• Decorate textiles appropriately often before joining</li> <li>• Components -Pin and tack fabric pieces together</li> <li>• Join fabrics using over sewing, back stitch or blanket stitch</li> <li>• Combine fabrics to create more useful properties</li> <li>• Make quality products</li> </ul>
<p><b>Related National Curriculum Objectives</b></p>	<p><b>Make</b></p> <ul style="list-style-type: none"> <li>• <i>select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</i></li> <li>• <i>select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</i></li> </ul>		<p><b>Make</b></p> <ul style="list-style-type: none"> <li>• <i>select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</i></li> <li>• <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></li> </ul>			

**CONSTRUCTION**

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> <li>• Uses simple tools to effect changes to materials.</li> <li>• Handles tools, construction and malleable materials safely and with increasing control.</li> </ul>	<ul style="list-style-type: none"> <li>• Make vehicles with construction kits which contain free running wheels</li> <li>• Use a range of materials to create models with wheels and axles e.g. tubes, dowel, cotton reels</li> <li>• Attach wheels to a chassis using an axle</li> </ul>	<ul style="list-style-type: none"> <li>• Join appropriately for different materials and situations e.g. glue, tape,</li> <li>• Mark out materials to be cut using a template</li> <li>• With an adult use a glue gun.</li> </ul>	<ul style="list-style-type: none"> <li>• Make structures more stable by giving them a wide base</li> <li>• Prototype frame structures</li> <li>• Measure and mark square selection, strip and dowel accordingly to 1cm</li> <li>• Use glue gun with close supervision (one to one)</li> </ul>	<ul style="list-style-type: none"> <li>• Incorporate a circuit with a bulb or buzzer into a model</li> <li>• Create shell or frame structures, strengthen frames with diagonal struts</li> </ul>	<ul style="list-style-type: none"> <li>• Use bradawl to mark hole positions</li> <li>• Cut strip wood, dowel, square section wood accurately to 1mm</li> <li>• Join materials using appropriate methods</li> <li>• Incorporate motor and a switch into a model</li> <li>• Control a model using a simple control programme</li> </ul>	<ul style="list-style-type: none"> <li>• Control a model using an ICT control programme</li> <li>• Build frameworks using a range of materials e.g. wood, card corrugated plastic to support mechanisms</li> <li>• Use glue gun with close supervision</li> <li>• Use a basic CAM mechanism to design a moving toy.</li> </ul>
<p><b>Related National Curriculum Objectives</b></p>	<p><b>Make</b></p> <ul style="list-style-type: none"> <li>• <i>select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</i></li> <li>• <i>select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</i></li> </ul> <p><b>Technical knowledge</b></p> <ul style="list-style-type: none"> <li>• <i>build structures, exploring how they can be made stronger, stiffer and more stable</i></li> <li>• <i>explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</i></li> </ul>		<p><b>Make</b></p> <ul style="list-style-type: none"> <li>• <i>select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing],</i></li> <li>• <i>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</i></li> </ul> <p><b>Technical knowledge</b></p> <ul style="list-style-type: none"> <li>• <i>apply their understanding of how to strengthen, stiffen and reinforce more complex structures</i></li> <li>• <i>understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages</i></li> <li>• <i>understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]</i></li> <li>• <i>apply their understanding of computing to program, monitor and control their products.</i></li> </ul>			

**SHEET MATERIALS**

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> <li>• Uses simple tools to effect changes to materials.</li> <li>• Handles tools, construction and malleable materials safely and with increasing control.</li> </ul>	<ul style="list-style-type: none"> <li>• Fold, tear and cut paper and card</li> <li>• Roll paper to create tubes</li> <li>• Cut along lines, straight and curved</li> <li>• Curl paper</li> <li>• Use hole punch</li> </ul>	<ul style="list-style-type: none"> <li>• Insert paper fasteners for card linkages</li> <li>• Use lolly sticks/card to make levers and linkages</li> <li>• Create hinges</li> <li>• Investigate strengthening sheet materials</li> <li>• Investigate joinings temporary, fixed and moving</li> </ul>	<ul style="list-style-type: none"> <li>• Cut slots</li> <li>• Cut internal shapes</li> </ul>	<ul style="list-style-type: none"> <li>• Use linkages to make movement larger or more varied.</li> <li>• Use and explore complex pop ups</li> </ul>	<ul style="list-style-type: none"> <li>• Cut slots</li> <li>• Cut accurately and safely to a marked line</li> <li>• Join and combing materials with temporary, fixed or moving joints.</li> </ul>	<ul style="list-style-type: none"> <li>• Use craft knife, cutting mat and safety ruler under one to one supervision if appropriate</li> <li>• Choose an appropriate sheet material for the purpose</li> <li>• Create nets</li> </ul>
<p><b>Related National Curriculum Objectives</b></p>	<p><b>Make</b></p> <ul style="list-style-type: none"> <li>• <i>select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</i></li> <li>• <i>select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</i></li> </ul> <p><b>Technical knowledge</b></p> <ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>		<p><b>Make</b></p> <ul style="list-style-type: none"> <li>• <i>select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</i></li> <li>• <i>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</i></li> </ul> <p><b>Technical knowledge</b></p> <ul style="list-style-type: none"> <li>• <i>apply their understanding of how to strengthen, stiffen and reinforce more complex structures</i></li> <li>• <i>understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</i></li> </ul>			

**EVALUATING**

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> <li>• Achieve what they set out to achieve.</li> <li>• Show satisfaction in meeting their own goals.</li> <li>• Be proud of how they accomplished something - not just the end results.</li> <li>• Enjoy meeting challenges for their own sake rather than external rewards or praise.</li> </ul>	<ul style="list-style-type: none"> <li>• Say what they like and do not like about items they have made and attempt to say why</li> <li>• Talk about changes made during the making process</li> <li>• Discuss how closely their finished products meet their design criteria</li> </ul>	<ul style="list-style-type: none"> <li>• Explore: what existing products are/ what they are for/ how they work/ how they are used/ materials used/ likes and dislikes about a product</li> <li>• Talk about their designs as they develop and identify good and bad points</li> </ul>	<ul style="list-style-type: none"> <li>• Identify the strengths and weaknesses of their design ideas</li> <li>• Decide which design idea to develop</li> <li>• Consider and explain how the finished product could be improved</li> </ul>	<ul style="list-style-type: none"> <li>• Discuss how well the finished product meets the design criteria and how well it meets the needs of the user.</li> </ul>	<ul style="list-style-type: none"> <li>• Use the design criteria to inform their decisions about ways to proceed</li> <li>• Justify their decisions about materials and methods of construction</li> <li>• Make suggestions as to how their design could be improved</li> </ul>	<ul style="list-style-type: none"> <li>• Identify what does and does not work in the product and suggest improvements.</li> <li>• Reflect on their work using design criteria stating how well the design fits the needs of the user</li> </ul>
<b>Related National Curriculum Objectives</b>	<b>Evaluate</b> <ul style="list-style-type: none"> <li>• <i>explore and evaluate a range of existing products</i></li> <li>• <i>evaluate their ideas and products against design criteria</i></li> </ul>		<b>Evaluate</b> <ul style="list-style-type: none"> <li>• <i>investigate and analyse a range of existing products</i></li> <li>• <i>evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</i></li> <li>• <i>understand how key events and individuals in design and technology have helped shape the world</i></li> </ul>			