



Year 1 – 6 Knowledge and Skills Progression for DT

Developing, planning and communicating ideas

Year 1/2	Year 3/4	Year 5/6
<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 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 drawings to record ideas as they are developed</li> <li>▪ Discuss their work as it progresses</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>▪ Think ahead about the order of their work and decide upon tools and materials</li> <li>▪ Plan a sequence of actions to make a product</li> <li>▪ Record the plan by drawing (labelled sketches) or writing</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> <li>▪ Add notes to drawings to help explanations</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 models, kits and drawings to help formulate design ideas</li> <li>▪ Make prototypes</li> <li>▪ Use found information to inform decisions</li> <li>▪ Use a computer to model ideas</li> <li>▪ Draw plans which can be read/followed by someone else</li> <li>▪ Give a report using correct technical vocabulary</li> </ul>

## Evaluation

Year 1/2	Year 3/4	Year 5/6
<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 their designs as they develop and identify good and bad points</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>▪ 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><li>▪ Discuss how well the finished product meets the design criteria and how well it meets the needs 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>▪ Reflect on their work using design criteria stating how well the design fits the needs of the user</li><li>▪ Identify what does and does not work in the product.</li><li>▪ Make suggestions as how their design could be improved</li></ul>

## Food

Year 1/2	Year 3/4	Year 5/6
<ul style="list-style-type: none"><li>▪ Develop a food vocabulary using taste, smell, texture and feel</li><li>▪ Group familiar food products e.g. fruit and vegetables</li><li>▪ Cut, peel, grate, chop a range of ingredients</li><li>▪ Work safely and hygienically</li><li>▪ Understand the need for a variety of foods in a diet</li><li>▪ Measure and weigh food items, non statutory measures e.g. spoons, cups</li></ul>	<ul style="list-style-type: none"><li>▪ Develop sensory vocabulary/knowledge using smell, taste, texture and feel</li><li>▪ Analyse the taste, texture, smell and appearance of a range of foods</li><li>▪ Follow instructions</li><li>▪ Make healthy eating choices from and understanding of a balanced diet</li><li>▪ Join and combine a range of ingredients e.g. snack foods</li><li>▪ Work safely and hygienically</li><li>▪ Measure and weigh ingredients appropriately</li></ul>	<ul style="list-style-type: none"><li>▪ Prepare food products taking into account the properties of ingredients and sensory characteristics</li><li>▪ Select and prepare foods for a particular purpose</li><li>▪ Taste a range of ingredients, food items to develop a sensory food vocabulary for use when designing.</li><li>▪ Weigh and measure using scales</li><li>▪ Cut and shape ingredients using appropriate tools and equipment e.g. grating</li><li>▪ Join and combine food ingredients appropriately e.g. beating, rubbing in</li><li>▪ Decorate appropriately</li><li>▪ Work safely and hygienically</li><li>▪ Show awareness of a healthy diet from an understanding of a balanced diet</li></ul>

## Textiles

Year 1/2	Year 3/4	Year 5/6
<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><li>▪ Join fabrics by using running stitch, glue, staples ,over sewing, tape</li><li>▪ Decorate fabrics with buttons, beads, sequins, braids, ribbons</li></ul>	<ul style="list-style-type: none"><li>▪ Understand seam allowance</li><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>▪ Prototype a product using J cloths</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><li>▪ Pin and tack fabric pieces together</li><li>▪ Join fabrics using over sewing, back stitch, blanket stitch or machine stitching</li><li>▪ Combine fabrics to create more useful properties</li><li>▪ Make quality products</li></ul>

## Construction & Sheet materials

Year 1/2	Year 3/4	Year 5/6
<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><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>▪ Cut strip wood/dowel using hacksaw and bench hook</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><li>▪ Make structures more stable by giving them a wide base</li><li>▪ Prototype frame and shell structures</li><li>▪ Measure and mark square selection, strip and dowel accordingly to 1cm</li><li>▪ Use glue gun with close supervision</li></ul>	<ul style="list-style-type: none"><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 an ICT control programme</li><li>▪ Use a cam to make an up and down mechanism</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></ul>

## Sheet materials

Year 1/2	Year 3/4	Year 5/6
<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><li>▪ Insert paper fasteners for card linkages</li><li>▪ Create hinges &amp; use simple pop ups</li><li>▪ Investigate strengthening sheet materials</li><li>▪ Investigate joining's - temporary, fixed and moving</li></ul>	<ul style="list-style-type: none"><li>▪ Cut slots</li><li>▪ Cut internal shapes</li><li>▪ Use lolly sticks/card to make levers and linkages</li><li>▪ Use linkages to make movement larger or more varied</li><li>▪ Use and explore complex pop ups</li><li>▪ Create nets</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 combine materials with temporary, fixed or moving joining's</li><li>▪ Use craft knife, cutting mat and safety ruler under one to one supervision</li><li>▪ Choose an appropriate sheet material for the purpose</li></ul>

