



Design Technology Progression of Knowledge and Skills

	EYFS	
Evaluation of Existing Products	<ul style="list-style-type: none"> •Children use what they have learnt about media and materials in original ways, thinking about uses and purposes 	<p>Early Learning Goals.</p> <p>Creating with Materials Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. Share their creations, explaining the process they have used. Make use of props and materials when role playing characters in narratives and stories.</p> <p>Being Imaginative and Expressive Invent, adapt and recount narratives and stories with peers and their teacher. Sing a range of well-known nursery rhymes and songs. Perform songs, rhymes, poems and stories with others, and (when appropriate) try to move in time with music.</p>
Food	<ul style="list-style-type: none"> •Experience a range of cooking and baking activities. •Experience and develop an interest in how some fruits and vegetables grow. 	
Textiles	<ul style="list-style-type: none"> •Develop the skills of drawing round a template. •Develop the skills of stitching by using a stencil with holes and laces. 	
Structures	<ul style="list-style-type: none"> •Develop problem solving skills when making models. •Develop skills using scissors to cut paper and card. 	
Mechanisms	<ul style="list-style-type: none"> •Explore a range of joining products e.g. tape, glue. •Use a range of construction kits to create models. 	
Design	<ul style="list-style-type: none"> •Represent their own ideas, thoughts and feelings. •Begin to make plans for their ideas and intentions. 	
Make	<ul style="list-style-type: none"> •They safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. 	
Evaluation (of Their Finished Product)	<ul style="list-style-type: none"> •Children use what they have learnt about media and materials in original ways, thinking about uses and purposes 	



	YEAR ONE	
Evaluation of Existing Products	<ul style="list-style-type: none"> ▶ Explore existing products and investigate how they have been made. ▶ Decide how existing products do/do not achieve their purpose. 	<ul style="list-style-type: none"> ▶ Note changes made during the making process as annotation to plans/drawings. ▶ Talk about their design as they develop and identify good and bad points.
Focused Tasks	<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. ▶ Fold, tear and cut paper and card. ▶ Cut along lines, straight and curved. ▶ Use a hole punch. ▶ Insert paper fasteners for card. ▶ Experiment with levers and sliders to find different ways of making things move. ▶ Develop a food vocabulary using taste, smell, texture and feel. ▶ Group familiar food products e.g. fruit and vegetables. 	<ul style="list-style-type: none"> ▶ Explain where food comes from. ▶ Cut, peel, grate, chop a range of ingredients. ▶ Work safely and hygienically. ▶ Understand the need for a variety of foods in a diet. ▶ Measure and weigh food items, non-standard measures e.g. spoons, cups. ▶ Explore how to make structures stronger. ▶ Investigate different techniques for stiffening a variety of materials. ▶ Test different methods of enabling structures to remain stable. ▶ Use a glue gun with close supervision.
Design	<ul style="list-style-type: none"> ▶ Use pictures and words to convey what they want to design/make. ▶ Propose more than one idea for their product. ▶ Use kits/reclaimed materials to develop more than one idea. ▶ Select appropriate technique explaining First... Next... Last.... ▶ Explore ideas by rearranging materials. 	<ul style="list-style-type: none"> ▶ Select pictures to help develop ideas. ▶ Use drawings to record ideas as they are developed. ▶ Add notes to drawings to help explanations. ▶ Describe their models and drawings of ideas and intentions. ▶ Talk about their design as they develop and identify good and bad points. ▶ Model ideas with kits, reclaimed materials ▶ Explore ideas by rearranging materials
Make	<ul style="list-style-type: none"> ▶ Discuss their work as it progresses. ▶ Select materials or ingredients from a limited range that will meet the design criteria. ▶ Select and name the tools needed. 	<ul style="list-style-type: none"> ▶ Explain what they are making. ▶ Explain which materials or ingredients they are using and why. ▶ Name the tools they are using. ▶ Describe what they need to do next.
Evaluation (of Their Finished Product)	<ul style="list-style-type: none"> ▶ Say what they like and do not like about items they have made and attempt to say why. 	<ul style="list-style-type: none"> ▶ Discuss how closely their finished product meets their design criteria and how well it meets the needs of the user.



YEAR TWO		
Evaluation of Existing Products	<ul style="list-style-type: none"> ▶ Explore existing products and investigate how they have been made. ▶ Talk about their design as they develop and identify good and bad points. 	<ul style="list-style-type: none"> ▶ Decide how existing products do/do not achieve their purpose. ▶ Note changes made during the making process as annotation to plans/drawings.
Focused Tasks	<ul style="list-style-type: none"> ▶ Cut out shapes which have been created by drawing round a template onto the fabric. ▶ Join fabrics by using e.g. running stitch, glue, staples, over sewing, tape. ▶ Decorate fabrics with attached items e.g. buttons, beads, sequins, braids, ribbons. ▶ Colour fabrics using a range of techniques e.g. fabric paints, printing, painting. ▶ Develop a food vocabulary using taste, smell, texture and feel. ▶ Group familiar food products e.g. fruit and vegetables. ▶ Explain where food comes from. ▶ Cut, peel, grate, chop a range of ingredients. 	<ul style="list-style-type: none"> ▶ Work safely and hygienically. ▶ Understand the need for a variety of foods in a diet. ▶ Measure and weigh food items, non statutory measures e.g. spoons, cups. ▶ Join appropriately for different materials and situations e.g. glue, tape. ▶ Try out different axle fixings and their strengths and weaknesses. ▶ 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. ▶ Cut dowel using hacksaw and bench hook. ▶ Attach wheels to a chassis using an axle.
Design	<ul style="list-style-type: none"> ▶ Use pictures and words to convey what they want to design/make. ▶ Propose more than one idea for their product. ▶ Explore ideas by rearranging materials. ▶ Use drawings to record ideas as they are developed. ▶ Add notes to drawings to help explanations. ▶ Describe their models and drawings of ideas and intentions. ▶ Use kits/reclaimed materials to develop more than one idea; model ideas with kits, reclaimed materials. 	<ul style="list-style-type: none"> ▶ Select pictures to help develop ideas ▶ Talk about their design as they develop and identify good and bad points. ▶ Note changes made during the making process as annotation to plans/drawings. ▶ Select appropriate technique explaining: First... Next... Last...
Make	<ul style="list-style-type: none"> ▶ Discuss their work as it progresses. ▶ Select materials or ingredients from a limited range that will meet the design criteria. ▶ Select and name the tools needed to work the materials. 	<ul style="list-style-type: none"> ▶ Explain what they are making. ▶ Explain which materials or ingredients they are using and why. ▶ Name the tools they are using. ▶ Describe what they need to do next.
Evaluation (of Their Finished Product)	<ul style="list-style-type: none"> ▶ Say what they like and do not like about items they have made and attempt to say why. ▶ Discuss how closely their finished product meets their design criteria and how well it meets the needs of the user. 	<ul style="list-style-type: none"> ▶ Note changes made during the making process as annotation to plans/drawings ▶ Talk about their design as they develop and identify good and bad points.



	YEAR THREE	
Evaluation of Existing Products	<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. 	<ul style="list-style-type: none"> ▶ Identify the strengths and weaknesses of their design ideas in relation to purpose/user. ▶ Decide which design idea to develop. ▶ Investigate key events and individuals in design and technology.
Focused Tasks	<ul style="list-style-type: none"> ▶ Develop sensory vocabulary and knowledge using, smell, taste, texture and feel. ▶ Analyse the taste, texture, smell and appearance of a range of foods which are predominantly savoury. ▶ Follow instructions and/or recipes. ▶ Make healthy eating choices – use the eatwell plate. ▶ Join and combine a range of ingredients. ▶ Explore seasonality of vegetables and fruit. ▶ Develop understanding of how meat or fish are reared and caught. 	<ul style="list-style-type: none"> ▶ Develop vocabulary related to the project. ▶ Use mechanical systems such levers and linkages. ▶ Use lolly sticks/card to make levers and linkages. ▶ Use linkages to make movement larger or more varied. ▶ Create shell or frame structures. ▶ Strengthen frames with diagonal struts. ▶ Make structures more stable by giving them a wide base. ▶ Measure and mark square section, strip and dowel accurately to one centimetre.
Design	<ul style="list-style-type: none"> ▶ Decide which design idea to develop. ▶ Develop more than one design or adaptation of an initial design. ▶ Plan a sequence of actions to make a product. ▶ Record the plan by drawing using annotated sketches. ▶ Use prototypes to develop and share ideas. 	<ul style="list-style-type: none"> ▶ Think ahead about the order of their work and decide upon tools and materials. ▶ Propose realistic suggestions as to how they can achieve their design ideas. ▶ Begin to use cross-sectional and exploded diagrams. ▶ Consider aesthetic qualities of materials chosen.
Make	<ul style="list-style-type: none"> ▶ Select from a range of tools and use with accuracy. ▶ Select from techniques for different parts of the process. ▶ Select from ingredients according to their properties. ▶ Use appropriate finishing techniques. ▶ Prepare pattern pieces as templates for their design. ▶ Cut slots. ▶ Cut internal shapes. 	<ul style="list-style-type: none"> ▶ Select from a range of tools for cutting, shaping, joining and finishing. ▶ Use tools with accuracy. ▶ Select from techniques for different parts of the process. ▶ Select from materials according to their functional properties. ▶ Plan the stages of the making process. ▶ Use appropriate finishing techniques.
Evaluation (of Their Finished Product)	<ul style="list-style-type: none"> ▶ Consider and explain how the finished product could be improved. ▶ Discuss how well the finished product meets the design criteria of the user. 	<ul style="list-style-type: none"> ▶ Investigate key events and individuals in design and technology.



YEAR FOUR	
Evaluation of Existing Products	<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. ▶ Investigate key events and individuals in Design and Technology.
Focused Tasks	<ul style="list-style-type: none"> ▶ Use electrical systems such as switches, bulbs and buzzers. ▶ Use ICT to control products. ▶ Incorporate a circuit into a model. ▶ Develop vocabulary for tools, materials and their properties. ▶ Understand seam allowance. ▶ Join fabrics using running stitch, over sewing, blanket stitch. ▶ Prototype a product using J cloths. ▶ Use prototype to make pattern. ▶ Explore strengthening and stiffening of fabrics. ▶ Explore fastenings (inventors?) and recreate some. ▶ Sew on buttons and make loops.
Design	<ul style="list-style-type: none"> ▶ Develop more than one design or adaptation of an initial design – research needs of user. ▶ Plan a sequence of actions to make a product. ▶ Use prototypes to develop and share ideas ▶ Decide which design idea to develop; ▶ Consider aesthetic qualities of materials chosen.
Make	<ul style="list-style-type: none"> ▶ Select from techniques for different parts of the process. ▶ Select from materials or ingredients according to their functional properties. ▶ Use appropriate finishing techniques.
Evaluation (of Their Finished Product)	<ul style="list-style-type: none"> ▶ Consider and explain how the finished product could be improved. ▶ Discuss how well the finished product meets the design criteria of the user.



	YEAR FIVE	
Evaluation of Existing Products	<ul style="list-style-type: none"> ▶ Research and evaluate existing products (including book and web based research). ▶ Consider user and purpose. ▶ Identify the strengths and weaknesses of their design ideas. ▶ Consider and explain how the finished product could be improved related to design criteria. 	<ul style="list-style-type: none"> ▶ Discuss how well the finished product meets the design criteria of the user. Test on the user. ▶ Give a report using correct technical vocabulary. ▶ Understand how key people have influenced design.
Focused Tasks	<ul style="list-style-type: none"> ▶ Prepare food products taking into account the properties of ingredients and sensory characteristics. ▶ Weigh and measure using scales. ▶ Select and prepare foods for a particular purpose. ▶ Work safely and hygienically. ▶ Use a range of cooking techniques. ▶ Know where and how ingredients are grown and processed. ▶ Develop a technical vocabulary appropriate to the project. ▶ Use mechanical systems such as cams, pulleys and gears. ▶ Use electrical systems such as motors. 	<ul style="list-style-type: none"> ▶ Use the correct vocabulary appropriate to the project. ▶ Create 3-D products using patterns pieces and seam allowance. ▶ Understand pattern layout. ▶ Decorate textiles appropriately (often before joining components). ▶ 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.
Design	<ul style="list-style-type: none"> ▶ Record ideas using annotated diagrams. ▶ Use models, kits and drawings to help formulate design ideas. ▶ Sketch and model alternative ideas. ▶ Combine modelling and drawing to refine ideas. ▶ List tools needed before starting the activity. 	<ul style="list-style-type: none"> ▶ Plan the sequence of work e.g. using a storyboard. ▶ Devise step by step plans which can be read/followed by someone else. ▶ Decide which design idea to develop. Use exploded diagrams to communicate ideas.
Make	<ul style="list-style-type: none"> ▶ Make prototypes. ▶ Develop one idea in depth. ▶ Produce detailed lists of ingredients / components / materials and tools. ▶ Select from and use a wide range of materials and tools. ▶ Select from and use a wide range of ingredients. 	<ul style="list-style-type: none"> ▶ Use appropriate finishing techniques for the project. ▶ Refine their product – review and rework/improve. ▶ Use researched information to inform decisions. ▶ Cut accurately and safely to a marked line. ▶ Use a computer to model ideas.
Evaluation (of Their Finished Product)	<ul style="list-style-type: none"> ▶ Give a report using correct technical vocabulary. ▶ Understand how key people have influenced design. 	<ul style="list-style-type: none"> ▶ Consider and explain how the finished product could be improved related to design criteria. ▶ Discuss how well the finished product meets the design criteria of the user. Test on the user.



YEAR SIX		
Evaluation of Existing Products	<ul style="list-style-type: none"> ▶ Research and evaluate existing products (including book and web based research). ▶ Consider user and purpose. 	<ul style="list-style-type: none"> ▶ Understand how key people have influenced design. ▶ Identify the strengths and weaknesses of their design ideas.
Focused Tasks	<ul style="list-style-type: none"> ▶ Prepare food products taking into account the properties of ingredients and sensory characteristics. ▶ Weigh and measure using scales. ▶ Select and prepare foods for a particular purpose. ▶ Work safely and hygienically. ▶ Show awareness of a healthy diet (using the eatwell plate). ▶ Use a range of cooking techniques. ▶ Know where and how ingredients are grown and processed. ▶ Consider influence of chefs e.g. Jamie Oliver and school meals, Hugh Fearnley-Whittingstall and sustainable fishing etc. 	<ul style="list-style-type: none"> ▶ Structures ▶ Use the correct terminology for tools, materials and processes. ▶ Use bradawl to mark hole positions. ▶ Use hand drill to drill tight and loose fit holes. ▶ Cut strip wood, dowel, square section wood accurately to 1mm. ▶ Join materials using appropriate methods. ▶ Build frameworks to support mechanisms. ▶ Stiffen and reinforce complex structures. ▶ Mechanical and Electrical Systems and ICT ▶ Develop a technical vocabulary appropriate to the project. ▶ Use mechanical systems such as cams, pulleys and gears. ▶ Use electrical systems such as motors. ▶ Program, monitor and control using ICT.
Design	<ul style="list-style-type: none"> ▶ List tools (<i>and utensils</i>) needed before starting the activity. ▶ Plan the sequence of work e.g. using a storyboard. ▶ Record ideas using annotated diagrams. ▶ Devise step by step plans which can be read/followed by someone else (<i>such as a recipe</i>). ▶ Sketch and model alternative ideas. 	<ul style="list-style-type: none"> ▶ Decide which design ideas to develop. ▶ Use models and kits to help formulate design ideas. ▶ Combine modelling and drawing to refine ideas. ▶ Use exploded diagrams and cross-sectional diagrams to communicate ideas.
Make	<ul style="list-style-type: none"> ▶ Make prototypes. ▶ Develop one idea in depth. ▶ Use researched information to inform decisions. ▶ Refine their product – review and rework/improve. ▶ Produce detailed lists of ingredients / components / materials and tools. 	<ul style="list-style-type: none"> ▶ Use a computer to model ideas. ▶ Select from and use a wide range of tools and utensils. ▶ Cut accurately and safely to a marked line. ▶ Select from and use a wide range of materials. ▶ Use appropriate finishing techniques for the project.
Evaluation (of Their Finished Product)	<ul style="list-style-type: none"> ▶ Consider user and purpose. ▶ Identify the strengths and weaknesses of their design ideas. ▶ Give a report using correct technical vocabulary. ▶ Consider and explain how the finished product could be improved related to design criteria. 	<ul style="list-style-type: none"> ▶ Discuss how well the finished product meets the design criteria of the user. Test on the user! ▶ Understand how key people have influenced design.

