



Progression of Knowledge and Skills in Design Technology

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Design Developing, planning and communicating ideas.</p>	<ul style="list-style-type: none"> Draw on their own experience to help generate ideas through talking, drawing, mock templates and mock ups. Suggest ideas and explain what they are going to do Identify a target group for what they intend to design and make Model their ideas in card and paper Develop their design ideas from a design criteria and apply findings from their earlier research <p>Draw and plan what they are going to make.</p>	<ul style="list-style-type: none"> Draw on their own experience to help generate ideas through talking, drawing, mock templates and mock ups. Generate ideas by drawing on their own and other people's experiences Develop their design ideas through discussion, observation, drawing and modelling Identify a purpose for what they intend to design and make Identify simple design criteria and use this to design their own and apply findings from earlier research Make simple drawings and label parts <p>Draw and plan what they are going to make.</p>	<ul style="list-style-type: none"> Generate ideas for an item, considering its purpose and the user/s Identify a purpose and establish criteria for a successful product, who is it for? Plan the order of their work before starting to ensure it is fit for purpose Explore, develop and communicate design proposals by modelling ideas Make drawings with labels when designing, why they want to use the materials and why it is fit for purpose. Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross sectional. <p>Design and generate their own plan and be creative, not just stick to the design criteria.</p>	<ul style="list-style-type: none"> Generate ideas, considering the purposes for which they are designing Make labelled drawings from different views showing specific features why they want to use the materials and why it is fit for purpose. Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail Evaluate products and identify criteria that can be used for their own designs Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross sectional. <p>Design and generate their own plan and be creative, not just stick to the design criteria.</p>	<ul style="list-style-type: none"> Generate ideas through brainstorming and identify a purpose for their product Draw up a specification for their design using annotated drawings and sketches Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making if the first attempts fail Use results of investigations, information sources, including ICT when developing design ideas Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross sectional, prototypes, pattern pieces and computer aided design. <p>Design and generate their own plan and be creative, not just stick to the design criteria.</p>	<ul style="list-style-type: none"> Generate ideas through brainstorming and identify a purpose for their product Draw up a specification for their design using annotated drawings and sketches Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making if the first attempts fail Use results of investigations, information sources, including ICT when developing design ideas Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross sectional, prototypes, pattern pieces and computer aided design. Communicate their ideas through detailed labelled drawings Develop a design specification Explore, develop and communicate aspects of their design proposals by modelling their ideas in a variety of ways Plan the order of their work, choosing appropriate materials, tools and techniques



						Design and generate their own plan and be creative, not just stick to the design criteria.
<p>Make Working with tools, equipment, materials and components to make quality products (inc-food)</p>	<ul style="list-style-type: none"> • Make their design using appropriate techniques • With help measure, mark out, cut and shape a range of materials • Use tools <i>eg scissors and a hole punch</i> safely • Assemble, join and combine materials and components together using a variety of temporary methods e.g. glues or masking tape • Select and use appropriate fruit and vegetables, processes and tools • Use basic food handling, hygienic practices and personal hygiene • Use simple finishing techniques to improve the appearance of their product such sewing. <p>Teach them how to hold a sewing needle, thread it and then stitch. Hold scissors and cut different materials.</p>	<ul style="list-style-type: none"> • Begin to select tools and materials; use vocab' to name and describe them • Measure, cut and score with some accuracy • Use hand tools safely and appropriately • Assemble, join and combine materials in order to make a product • Cut, shape and join fabric to make a simple garment such as a fabric face. Use basic sewing techniques • Follow safe procedures for food safety and hygiene • Choose and use appropriate finishing techniques <p>Teach them how to hold a sewing needle, thread it and then stitch.</p>	<ul style="list-style-type: none"> • Select tools and techniques for making their product for example, cutting, shaping, joining and finishing. • Select from a wide range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities. • Measure, mark out, cut, score and assemble components with more accuracy • Work safely and accurately with a range of simple tools • Think about their ideas as they make progress and be willing change things if this helps them improve their work • Measure, tape or pin, cut and join fabric with some accuracy • Demonstrate hygienic food preparation and storage • Use finishing techniques strengthen and improve the appearance of their 	<ul style="list-style-type: none"> • Select appropriate tools and techniques for making their product • Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques to perform practical tasks • Join and combine materials and components accurately in temporary and permanent ways • Measure, tape or pin, cut and join fabric with some accuracy • Use simple graphical communication techniques <p>Select the tools/ materials and be able to reason for their choice.</p>	<ul style="list-style-type: none"> • Select appropriate materials, tools and techniques and understand the properties in order to say why they have chosen it • Select materials from and including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities. • Measure and mark out accurately • Use skills in using different tools and equipment safely and accurately • Weigh and measure accurately (time, dry ingredients, liquids) • Apply the rules for basic food hygiene and other safe practices e.g. hazards relating to the use of ovens • Cut and join with accuracy to ensure a good-quality finish to the product <p>Select the tools/ materials and be able to reason for their choice.</p>	<ul style="list-style-type: none"> • Select appropriate tools, materials, components and techniques and understand the properties in order to say why they have chosen it • Select materials from and including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities • Assemble components make working models • Use tools safely and accurately • Construct products using permanent joining techniques • Make modifications as they go along • Pin, sew and stitch materials together create a product • Achieve a quality product that is fit for purpose and meets the success criteria of their own design plan <p>Select the tools/ materials and be able to reason for their choice.</p>



			<p>product using a range of equipment including ICT</p> <p>Select the tools/ materials and be able to reason for their choice.</p>			
--	--	--	--	--	--	--



<p>Evaluate</p> <p>Evaluating processes and products</p>	<ul style="list-style-type: none"> Evaluate and explore a range of existing products Evaluate their product by discussing how well it works in relation to the purpose Evaluate their products as they are developed, identifying strengths and possible changes they might make Evaluate their product by asking questions against a design criteria about what they have made and how they have gone about it <p>Be able to talk about their design and evaluate it.</p>	<ul style="list-style-type: none"> Evaluate against their own design against a design criteria Evaluate their products as they are developed, identifying strengths and possible changes they might make Talk about their ideas, saying what they like and dislike about them Evaluate and explore a range of existing products <p>Be able to talk about their design and why they like it. Know what the words evaluate means! Compare it to an original.</p>	<ul style="list-style-type: none"> Investigate and analyse a range of existing products Evaluate their product against original design criteria <i>e.g. how well it meets its intended purpose</i> Consider the views of others to improve their work Disassemble and evaluate familiar products Understand how key events and individuals in design and technology have helped shape the world <p>Know what the words evaluate means! Evaluate their product and say what they would change.</p>	<ul style="list-style-type: none"> Investigate and analyse a range of existing products Evaluate their work both during and at the end of the assignment Evaluate their products by carrying out appropriate tests 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>Know what the words evaluate means! Evaluate their product and say what they would change.</p>	<ul style="list-style-type: none"> Investigate and analyse a range of existing products Evaluate a product against the original design specification Evaluate it personally and seek evaluation from others Understand how key events and individuals in design and technology have helped shape the world <p>Know what the words evaluate means! Evaluate their product and say what they would change.</p>	<ul style="list-style-type: none"> Investigate and analyse a range of existing products Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests Record their evaluations using drawings with labels Evaluate against their original criteria and suggest ways that their product could be improved Understand how key events and individuals in design and technology have helped shape the world <p>Know what the words evaluate means! Evaluate their product and say what they would change. Compare it to the original and state which one works better, why?</p>
---	--	--	--	---	--	---



<p>Technical Knowledge</p>	<ul style="list-style-type: none"> Build structures to explore how they can be made stronger, stiffer and more stable Explore and use mechanisms for example levers, sliders and axels in their products. <p>Understand the vocabulary e.g: what a slider is and describe what they are making.</p>	<ul style="list-style-type: none"> Build structures to explore how they can be made stronger, stiffer and more stable Explore and use mechanisms for example levers, sliders and axels in their products. <p>Understand the vocabulary e.g: what a slider is and describe what they are making.</p>	<ul style="list-style-type: none"> Understand and use electrical systems in their products for example incorporating switches, bulbs, buzzers and motors 	<ul style="list-style-type: none"> 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, linkages. 	<ul style="list-style-type: none"> 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, linkages. Understand and use electrical systems in their products for example incorporating switches, bulbs, buzzers and motors <p>Apply their understanding of computing to program, monitor and control their products.</p>	<ul style="list-style-type: none"> 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, linkages. Understand and use electrical systems in their products for example incorporating switches, bulbs, buzzers and motors <p>Apply their understanding of computing to program, monitor and control their products.</p>
<p>Cooking and nutrition</p>	<ul style="list-style-type: none"> Use the basic principles of a basic and varied diet to prepare dishes To understand where food comes from <p>Basic skills such as safety in the kitchen. Walk, don't run, adults use sharp objects, teach them how to hold a knife and to cut. Allow the children to become aware of fruit and what they are called- describe them. Give the children opportunities to taste all that is required.</p>	<ul style="list-style-type: none"> Use the basic principles of a basic and varied diet to prepare dishes <p>To understand where food comes from Basic skills such as safety in the kitchen. Walk, don't run, adults use sharp objects, teach them how to hold a knife and to cut. Allow the children to become aware of fruit and what they are called- describe them. Give the children opportunities to taste all that is required. Grow your own vegetables for your gardens</p>	<ul style="list-style-type: none"> Understand and apply the principles of a varied diet Prepare and cook a range of predominately savoury dishes using a range of cooking techniques Understand seasonality and know where and how a variety of ingredients are grown <p>Allow the children to become aware of dough and how it is made Give the children opportunities to taste all that is required.</p>	<ul style="list-style-type: none"> Understand and apply the principles of a varied diet Prepare and cook a range of predominately savoury dishes using a range of cooking techniques <p>Understand seasonality and know where and how a variety of ingredients are grown Allow the children to become aware of dough and how it is made Give the children opportunities to taste all that is required.</p>	<ul style="list-style-type: none"> Understand and apply the principles of a varied diet Prepare and cook a range of predominately savoury dishes using a range of cooking techniques <p>Understand seasonality and know where and how a variety of ingredients are grown Allow the children to become aware of ingredients, what they are used for and how we use them. Give the children opportunities to taste all that is required.</p>	<ul style="list-style-type: none"> Understand and apply the principles of a varied diet Prepare and cook a range of predominately savoury dishes using a range of cooking techniques <p>Understand seasonality and know where and how a variety of ingredients are grown Allow the children to become aware of ingredients, what they are used for and how we use them. Give the children opportunities to taste all that is required.</p>