

National Curriculum – end of key stage expectations for Years 1-6

<u>By end of Key Stage 1</u>	<u>Year 1</u>	<u>Year 2</u>
<p><u>Design</u></p> <p>I can design purposeful, functional, appealing products for myself and other users based on design criteria</p> <p>I can generate, develop, model and communicate my ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p>	<ul style="list-style-type: none"> • Draw on their own experience to help generate ideas • 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 applying findings from their earlier research 	<ul style="list-style-type: none"> • 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 • Make simple drawings and label parts
<p><u>Make</u></p> <p>I can select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</p> <p>I can select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</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 e.g. scissors and a hole punch 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 	<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. Use basic sewing techniques • Follow safe procedures for food safety and hygiene • Choose and use appropriate finishing techniques
<p><u>Evaluate</u></p> <p>I can explore and evaluate a range of existing products</p> <p>I can evaluate my ideas and products against design criteria</p>	<ul style="list-style-type: none"> • 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 about what they have made and how they have gone about it 	<ul style="list-style-type: none"> • Evaluate against their 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
<p><u>Technical knowledge</u></p> <p>I can build structures, exploring how they can be made stronger, stiffer and more stable</p> <p>I can explore and use mechanisms [for example, levers, sliders, wheels and axles], in my products.</p>		
<p><u>Cooking and Nutrition</u></p> <p>I can use the basic principles of a healthy and varied diet to prepare dishes</p> <p>I understand where food comes from.</p>		

<u>'I can' statements for Design Technology</u>	
Year 1	Year 2
<p>I can think of ideas and recognise characteristics of familiar products.</p> <p>My plans show that, with help, I can put my ideas into practice.</p> <p>I can use pictures and words to describe what I want to do.</p> <p>I can explain what I am making and which tools I am using.</p> <p>I can use tools and materials with help, where needed.</p> <p>I can talk about my own and other people's work in simple terms.</p> <p>I can describe how a product works.</p>	<p>I can think of ideas and plan what to do next, based on my experience of working with materials and components.</p> <p>I can use models, pictures and words to describe my designs.</p> <p>I can select appropriate tools, techniques and materials, explaining my choices.</p> <p>I can use tools and assemble, join and combine materials and components in a variety of ways.</p> <p>I can recognise what I have done well as my work progresses, and suggest things I could do better in the future.</p>

<u>By end of Key Stage 2</u>	Y3	Y4	Y5	Y6
<p><u>Design</u></p> <p>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</p> <p>generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</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. • Plan the order of their work before starting • Explore, develop and communicate design proposals by modelling ideas • Make drawings with labels when designing 	<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 • 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 	<ul style="list-style-type: none"> • Generate ideas through brainstorming and identify a purpose for their product • Draw up a specification for their design • 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 	<ul style="list-style-type: none"> • 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
<p><u>Make</u></p> <p>select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</p> <p>select from and use a wider range of materials and components, including</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 e.g. scissors and a hole punch safely 	<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 	<ul style="list-style-type: none"> • Select appropriate materials, tools and techniques • Measure and mark out accurately • Use skills in using different tools and equipment safely and accurately 	<ul style="list-style-type: none"> • Select appropriate tools, materials, components and techniques • Assemble components make working models • Use tools safely and accurately

construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Assemble, join and combine materials in order to make a product Cut, shape and join fabric to make a simple garment. Use basic sewing techniques Follow safe procedures for food safety and hygiene Choose and use appropriate finishing techniques 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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
<u>Evaluate</u> investigate and analyse a range of existing products evaluate their ideas and products against their own design criteria and consider the views of others to improve their work understand how key events and individuals in design and technology have helped shape the world	<ul style="list-style-type: none"> Evaluate their product against original design criteria e.g. how well it meets its intended purpose Disassemble and evaluate familiar products 	<ul style="list-style-type: none"> Evaluate their work both during and at the end of the assignment Evaluate their products carrying out appropriate tests 	<ul style="list-style-type: none"> Evaluate a product against the original design specification Evaluate it personally and seek evaluation from others 	<ul style="list-style-type: none"> 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
<u>Technical knowledge</u> 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				
<u>Cooking & Nutrition</u> 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 can' statements for Design Technology

Year 3/4

Year 5/6

<p>I can make realistic plans for achieving my aims.</p> <p>I can explain my ideas clearly when asked.</p> <p>I can think of my own ideas and understand that my designs have to meet a range of needs. I can use words, labelled sketches and models to demonstrate the details in my designs.</p> <p>I can think ahead about the order of my work, choosing appropriate equipment, materials, components and techniques.</p> <p>I can use tools and equipment with some accuracy to cut and shape materials and to put together components.</p> <p>I can identify where the evaluation of my design, the process I went through to make it and the finished product, has led to improvements.</p>	<p>I can produce step by step plans, taking others' views into account.</p> <p>I can think of my own ideas by collecting and using other sources of information. I can think of and demonstrate alternative ideas using words, labelled sketches and models.</p> <p>I can show that I am aware of constraints for my ideas. I can select a range of tools and equipment.</p> <p>I can work with a range of tools and equipment. I can work with a variety of materials and components with some accuracy, pay attention to the quality of finish and to function.</p> <p>I can reflect on my designs as they develop and think about the way the product will be used.</p> <p>I can identify what is working well.</p> <p>I can identify what could be improved.</p> <p>I can use various sources of information to help me.</p> <p>I can explain my ideas clearly through discussion, drawing and modelling.</p> <p>I can use my understanding of the characteristics of familiar products when explaining and developing my own ideas.</p> <p>I can work from my own detailed plans and change them when necessary.</p> <p>I can work with a range of tools, materials, equipment and components with some accuracy, paying attention to the quality of finish and to function.</p> <p>I can evaluate my products and my use of information sources</p> <p>I can test my product to show I understand the situations in which my design will have to function.</p> <p>I am aware of resources as a constraint.</p> <p>I can check my work as it develops and change my approach if necessary.</p>
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