



	EYFS	KSI	LKS2	UKS2
Design	<p>Say what they have made and who they have made it for.</p> <p>Express their ideas using full sentences, with modelling and support from their teacher.</p>	<p>Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing.</p> <p>They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment].</p> <p>Children design purposeful, functional, appealing products for themselves and other users based on design criteria.</p> <p>They generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.</p> <p>Children can:</p> <ul style="list-style-type: none"> <li><b>a</b> use their knowledge of existing products and their own experience to help generate their ideas;</li> <li><b>b</b> design products that have a purpose and are aimed at an intended user;</li> <li><b>c</b> explain how their products will look and work through talking and simple annotated drawings;</li> </ul>	<p>Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing.</p> <p>They should work in a range of relevant contexts [for example, the home, school, leisure, culture, enterprise, industry and the wider environment].</p> <p>Children 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>They generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.</p> <p>Children can:</p> <ul style="list-style-type: none"> <li><b>a</b> identify the design features of their products that will appeal to intended customers;</li> <li><b>b</b> use their knowledge of a broad range of existing products to help generate their ideas;</li> <li><b>c</b> design innovative and appealing products that have a clear purpose and are aimed at a specific user;</li> <li><b>d</b> explain how particular parts of their products work;</li> <li><b>e</b> use annotated sketches and cross-</li> </ul>	<p>Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing.</p> <p>They should work in a range of relevant contexts [for example, the home, school, leisure, culture, enterprise, industry and the wider environment].</p> <p>Children 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>They generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.</p> <p>Children can:</p> <ul style="list-style-type: none"> <li><b>a</b> use research to inform and develop detailed design criteria to inform the design of innovative, functional and appealing products that are fit for purpose and aimed at a target market;</li> <li><b>b</b> use their knowledge of a broad range of existing products to help generate their ideas;</li> <li><b>c</b> design products that have a clear purpose and indicate the design features of their products that will appeal to the intended user;</li> <li><b>d</b> explain how particular parts of their products work;</li> <li><b>e</b> use annotated sketches, cross-sectional drawings and exploded diagrams (possibly including computer-aided design) to</li> </ul>

		<p><b>d</b> design models using simple computing software; <b>e</b> plan and test ideas using templates and mock-ups; <b>f</b> understand and follow simple design criteria;</p> <ul style="list-style-type: none"> <li><b>g</b> work in a range of relevant contexts, for example imaginary, story-based, home, school and the wider environment.</li> </ul>	<p>sectional drawings to develop and communicate their ideas;</p> <p><b>f</b> when designing, explore different initial ideas before coming up with a final design;</p> <p><b>g</b> when planning, start to explain their choice of materials and components including function and aesthetics;</p> <p><b>h</b> test ideas out through using prototypes;</p> <p><b>i</b> use computer-aided design to develop and communicate their ideas (see note on p. 1);</p> <p><b>j</b> develop and follow simple design criteria;</p> <ul style="list-style-type: none"> <li>work in a broader range of relevant contexts, for example entertainment, the home, school, leisure, food industry and the wider environment.</li> </ul>	<p>develop and communicate their ideas;</p> <p><b>f</b> generate a range of design ideas and clearly communicate final designs;</p> <p><b>g</b> consider the availability and costings of resources when planning out designs;</p> <ul style="list-style-type: none"> <li>work in a broad range of relevant contexts, for example conservation, the home, school, leisure, culture, enterprise, industry and the wider environment.</li> </ul>
<p><i>Make</i></p>	<p>Participate in small group, class and one to one discussions offering their own ideas using recently introduced vocabulary.</p> <p>Fine motor- effectively use a range of small tools including scissors and paintbrushes.</p> <p>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</p>	<p>Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of making.</p> <p>Children select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing].</p> <p>They select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.</p> <p>Children can:</p> <p>Planning</p> <p><b>a</b> with support, follow a simple plan or recipe;</p>	<p>Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of making.</p> <p>Children 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>They 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.</p> <p>Children can:</p> <p>Plan</p> <p><b>a</b> with growing confidence, carefully select from a range of tools and equipment, explaining their choices;</p>	<p>Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of making.</p> <p>Children 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>They 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.</p> <p>Children can:</p> <p>Planning</p> <p><b>a</b> independently plan by suggesting what to do next;</p> <p><b>b</b> with growing confidence, select from a wide range of tools and equipment, explaining their</p>

- b** begin to select from a range of hand tools and equipment, such as scissors, graters, zesters, safe knives, juicers;
- c** select from a range of materials, textiles and components according to their characteristics;

Practical skills and techniques

- d** learn to use hand tools and kitchen equipment safely and appropriately, and learn to follow hygiene procedures;
- e** use a range of materials and components, including textiles and food ingredients;
- f** with help, measure and mark out;
- g** cut, shape and score materials with some accuracy;
- h** assemble, join and combine materials, components or ingredients;
- i** demonstrate how to cut, shape and join fabric to make a simple product;
- j** manipulate fabrics in simple ways to create the desired effect;
- k** use a basic running stitch;
- l** cut, peel and grate ingredients, including measuring and weighing ingredients using measuring cups;
- m** begin to use simple finishing techniques to improve the appearance of their product, such as adding

- b** select from a range of materials and components according to their functional properties and aesthetic qualities;
- c** place the main stages of making in a systematic order;

Practical skills and techniques

- d** learn to use a range of tools and equipment safely, appropriately and accurately, and learn to follow hygiene procedures;
- e** use a wider range of materials and components, including construction materials and kits, textiles and mechanical and electrical components;
- f** with growing independence, measure and mark out to the nearest cm and millimetre;
- g** cut, shape and score materials with some degree of accuracy;
- h** assemble, join and combine material and components with some degree of accuracy;
- i** demonstrate how to measure, cut, shape and join fabric with some accuracy to make a simple product;
- j** join textiles with an appropriate sewing technique;
- begin to select and use different and appropriate finishing techniques to improve the appearance of a product such as hemming, tie-dye, fabric paints and digital graphics.

choices;

- c** select from a range of materials and components according to their functional properties and aesthetic qualities;
- d** create step-by-step plans as a guide to making;

Practical skills and techniques

- e** learn to use a range of tools and equipment safely and appropriately and learn to follow hygiene procedures;
- f** independently take exact measurements and mark out, to within 1 millimetre;
- g** use a full range of materials and components, including construction materials and kits, textiles, and mechanical components;
- h** cut a range of materials with precision and accuracy;
- i** shape and score materials with precision and accuracy;
- j** assemble, join and combine materials and components with accuracy;
- k** demonstrate how to measure, make a seam allowance, tape, pin, cut, shape and join fabric with precision to make a more complex product;
- l** join textiles using a greater variety of stitches, such as backstitch, whip stitch, blanket stitch;
- refine the finish using techniques to improve the appearance of their product, such as sanding or a more precise scissor cut after roughly cutting out a shape.

		<p>simple decorations.</p>		
<p>Evaluate</p>	<p>Share their creations explaining what processes they have used.</p> <p>Children to say what they like about their creation and why they like it.</p>	<p>KS1 Design and Technology National Curriculum</p> <p>Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making.</p> <p>Children explore and evaluate a range of existing products. They evaluate their ideas and products against design criteria. Children can:</p> <ul style="list-style-type: none"> <li><b>a</b> explore and evaluate existing products mainly through discussions, comparisons and simple written evaluations;</li> <li><b>b</b> explain positives and things to improve for existing products;</li> <li><b>c</b> explore what materials products are made from;</li> <li><b>d</b> talk about their design ideas and what they are making;</li> <li><b>e</b> as they work, start to identify strengths and possible changes they might make to refine their existing design;</li> <li><b>f</b> evaluate their products and ideas against their simple design criteria;</li> </ul> <ul style="list-style-type: none"> <li>• start to understand that the iterative process sometimes</li> </ul>	<p>KS2 Design and Technology National Curriculum</p> <p>Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making.</p> <p>Children investigate and analyse a range of existing products.</p> <p>They evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p> <p>They understand how key events and individuals in design and technology have helped shape the world.</p> <p>Children can:</p> <ul style="list-style-type: none"> <li><b>a</b> explore and evaluate existing products, explaining the purpose of the product and whether it is designed well to meet the intended purpose;</li> <li><b>b</b> explore what materials/ingredients products are made from and suggest reasons for this;</li> <li><b>c</b> consider their design criteria as they make progress and are willing to alter their plans, sometimes considering the views of others if this helps them to improve their product;</li> <li><b>d</b> evaluate their product against their original design criteria;</li> </ul> <ul style="list-style-type: none"> <li>• evaluate the key events, including technological developments, and designs</li> </ul>	<p>KS2 Design and Technology National Curriculum</p> <p>Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making.</p> <p>Children investigate and analyse a range of existing products.</p> <p>They evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p> <p>They understand how key events and individuals in design and technology have helped shape the world.</p> <p>Children can:</p> <ul style="list-style-type: none"> <li><b>a</b> complete detailed competitor analysis of other products on the market;</li> <li><b>b</b> critically evaluate the quality of design, manufacture and fitness for purpose of products as they design and make;</li> </ul> <ul style="list-style-type: none"> <li>• evaluate their ideas and products against the original design criteria, making changes as needed.</li> </ul>

		involves repeating different stages of the process.	of individuals in design and technology that have helped shape the world.	
Technical Knowledge and skills				
Vocabulary	Begin to use the correct vocabulary for simple tools such as scissors and techniques such as 'cut'.	<ul style="list-style-type: none"> <li>Begin to know the correct technical vocabulary for the projects they are undertaking and the tools they are using.</li> </ul>	<ul style="list-style-type: none"> <li>Know and use increasingly appropriate technical vocabulary for processes, mechanisms, tools materials and their properties.</li> </ul>	<ul style="list-style-type: none"> <li>Know the correct technical vocabulary for the projects they are undertaking</li> <li></li> </ul>
Materials	Explore a variety of materials and techniques, experimenting with colour, design, texture, form and function.	<ul style="list-style-type: none"> <li>Know about the simple working characteristics of materials and components</li> </ul>	<ul style="list-style-type: none"> <li>Know how to use learning from science and maths to help design and make products that work</li> <li>Know that materials have both functional properties and aesthetic qualities</li> <li>Know that materials can be combined and mixed to create more useful characteristics</li> </ul>	<ul style="list-style-type: none"> <li>Know how to use learning from science and maths to help design and make products that work</li> <li>Know that materials have both functional properties and aesthetic qualities</li> <li>Know that materials can be combined and mixed to create more useful characteristics</li> </ul>
Structures	Exploration and use of a range of construction kits and materials. Develop practical skills and techniques using a range of materials and construction materials.	<ul style="list-style-type: none"> <li>Build structures, exploring how they can be made stronger, stiffer and more stable</li> <li>Follow procedures for safety</li> <li>Use a range of materials and components, including construction materials and kits.</li> <li>Measure, mark out, cut and shape materials and components</li> <li>Assemble, join and combine materials and components</li> <li>Know how freestanding structures can be made stronger, stiffer and more stable</li> </ul>	<ul style="list-style-type: none"> <li>Follow procedures for safety</li> <li>Use a wider range of materials and components than KSI</li> <li>Measure, mark out, cut and shape materials and components with some accuracy</li> <li>Assemble, join and combine materials and components with some accuracy</li> <li>Know how to make strong, stiff shell structures</li> <li>apply their understanding of how to strengthen, stiffen and reinforce more complex structures</li> <li>Measure and mark square section, strip wood and dowel accurately to 1cm.</li> </ul>	<ul style="list-style-type: none"> <li>Follow procedures for safety</li> <li>Use a wider range of materials and components than KSI</li> <li>Accurately measure, mark out, cut and shape materials and components</li> <li>Accurately assemble, join and combine materials and components</li> <li>Use techniques that involve a number of steps</li> <li>Demonstrate resourcefulness when tackling practical problems</li> <li>Know how to reinforce and strengthen a 3D framework</li> <li>Cut strip wood, dowel, square section wood accurately to 1mm.</li> </ul>
Mechanisms	Knows how to operate simple equipment. Shows an interest in technological toys with knobs or pulleys, or real objects. Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images.	<ul style="list-style-type: none"> <li>Know about the movement of simple mechanisms such as levers, sliders, wheels and axles</li> </ul>	<ul style="list-style-type: none"> <li>Know that mechanical and electrical systems have an input, process and output</li> <li>Know how mechanical systems such as levers and linkages or pneumatic hydraulic systems create movement</li> <li></li> </ul>	<ul style="list-style-type: none"> <li>Know that mechanical and electrical systems have an input, process and output</li> <li>Know how mechanical systems such as cams or pulleys or gears create movement</li> <li></li> </ul>

<p>Electricity, programming and control</p>	<p>To recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes. They select and use technology for a particular purpose.</p>	<p>In Computing children should:</p> <ul style="list-style-type: none"> <li>• explore the use of programmable toys such as beebots and screen turtles</li> <li>• be able to debug a sequence</li> <li>• know how to turn electrical devices on and off and when batteries need replacing</li> </ul>	<ul style="list-style-type: none"> <li>• Know how simple electrical circuits and components can be used to create functional products</li> <li>• Know how to program a computer to control their products</li> </ul>	<ul style="list-style-type: none"> <li>• Know how more complex electrical circuits and components can be used to create functional products</li> <li>• Know how to program a computer to monitor changes in the environment and control their products</li> </ul>
<p>Textiles</p>	<p>Good fine motor skills. Children have experience of weaving materials and threading activities and have experiences of exploring, cutting and gluing fabric.</p>	<ul style="list-style-type: none"> <li>• Use a range of materials and components, including textiles</li> <li>• Measure, mark out, cut and shape materials</li> <li>• Know that a 3-D textiles product can be assembled from two identical fabric shapes</li> <li>• Use a template to create fabric shapes</li> <li>• Running stitch/ whip stitch</li> <li>• Sew on a button</li> </ul>	<ul style="list-style-type: none"> <li>• Use a wider range of materials and begin to combine and mix materials to create more useful characteristics</li> <li>• Measure, mark out, cut and shape materials and components with some accuracy</li> <li>• Know that a single fabric shape can be used to make a 3D textiles product</li> <li>• Assemble, join and combine materials and components with some accuracy</li> <li>• Make pattern pieces to create items and applique pieces</li> <li>• Consider a seam allowance</li> <li>• Increased neatness of and types of stitches</li> </ul>	<ul style="list-style-type: none"> <li>• Know that a 3D textiles product can be made from a combination of fabric shapes</li> <li>• Increased accuracy of skills gone before</li> <li>• Produce pattern pieces using CAD</li> </ul>
<p>Food Where food comes from</p>	<p>Eats a healthy range of foodstuffs and understands a need for variety in food and understand the importance of healthy food choices.</p>	<ul style="list-style-type: none"> <li>• Know that all food comes from plants or animals</li> <li>• Know that food has to be farmed, grown elsewhere (e.g. home) or caught</li> </ul>	<ul style="list-style-type: none"> <li>• Know that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world.</li> </ul>	<ul style="list-style-type: none"> <li>• Know that seasons may affect the food available</li> <li>• Know how food is processed into ingredients that can be eaten or used in cooking</li> </ul>
<p>Food Preparation, cooking and nutrition</p>	<p>Manage their own basic hygiene and personal hygiene including food choices. Effectively use a range of small tools, including cutlery.</p>	<ul style="list-style-type: none"> <li>• Know that everyone should eat at least five portions of fruit and vegetables every day.</li> <li>• Use basic food handling, hygienic practices and personal hygiene.</li> <li>• Become familiar with some basic cooking techniques such as washing, peeling, chopping, rolling, stirring etc.</li> <li>• Prepare simple dishes safely and hygienically, without using a heat source</li> </ul>	<ul style="list-style-type: none"> <li>• Know that a healthy diet is made up from a variety and balance of different food and drink, as depicted in The eatwell plate.</li> <li>• Know that to be active and healthy, food and drink are needed to provide energy for the body</li> <li>• To use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.</li> <li>• Choose the correct tools and use them safely for a range of techniques.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate a knowledge of safe food storage</li> <li>• Weigh and measure accurately (time, dry ingredients, liquids)</li> <li>• Know that different food and drink contain different substances - nutrients, water and fibre - that are needed for health</li> <li>• Prepare and cook a variety of predominantly savoury dishes safely and hygienically using a range of cooking techniques.</li> <li>• Know that recipes can be adapted to change the appearance, taste, texture and aroma</li> </ul>

		<ul style="list-style-type: none"><li>• Know that food ingredients should be combined according to their sensory characteristics</li><li>•</li></ul>	<ul style="list-style-type: none"><li>• Prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source</li><li>• Know that a recipe can be adapted a by adding or substituting one or more ingredients</li><li>• Know that food ingredients can be fresh, pre-cooked and processed</li></ul>	
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