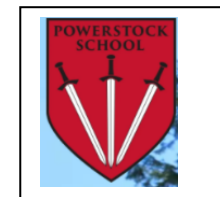


# Powerstock CE VA Primary School

## Design Technology

## Progression of skills

	KS1	LKS2	UKS2
Design	<p><b>KS1 Design and Technology National Curriculum</b></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>a use their knowledge of existing products and their own experience to help generate their ideas;</li> <li>b design products that have a purpose and are aimed at an intended user;</li> <li>c explain how their products will look and work through talking and simple annotated drawings;</li> <li>d design models using simple computing software; e plan and test ideas using templates and mock-ups; f understand and follow simple design criteria;</li> <li>g work in a range of relevant contexts, for example imaginary, story-based, home, school and the wider environment.</li> </ul>	<p><b>KS2 Design and Technology National Curriculum</b></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, 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. Children can:</p> <ul style="list-style-type: none"> <li>a identify the design features of their products that will appeal to intended customers;</li> <li>b use their knowledge of a broad range of existing products to help generate their ideas;</li> <li>c design innovative and appealing products that have a clear purpose and are aimed at a specific user;</li> <li>d explain how particular parts of their products work;</li> <li>e use annotated sketches and cross-sectional drawings to develop and communicate their ideas;</li> <li>f when designing, explore different initial ideas before coming up with a final design;</li> <li>g when planning, start to explain their choice of materials and components including function and aesthetics;</li> <li>h test ideas out through using prototypes;</li> <li>i use computer-aided design to develop and communicate their ideas (see note on p. 1);</li> <li>j develop and follow simple design criteria;</li> <li>k work in a broader range of relevant contexts, for example entertainment, the home, school, leisure, food industry and the wider environment.</li> </ul>	<p><b>KS2 Design and Technology National Curriculum</b></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, 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. Children can:</p> <ul style="list-style-type: none"> <li>a 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 use their knowledge of a broad range of existing products to help generate their ideas;</li> <li>c design products that have a clear purpose and indicate the design features of their products that will appeal to the intended user;</li> <li>d explain how particular parts of their products work;</li> <li>e use annotated sketches, cross-sectional drawings and exploded diagrams (possibly including computer-aided design) to develop and communicate their ideas;</li> <li>f generate a range of design ideas and clearly communicate final designs;</li> <li>g consider the availability and costings of resources when planning out designs;</li> <li>h work in a broad range of relevant contexts, for example conservation, the home, school, leisure, culture, enterprise, industry and the wider environment.</li> </ul>

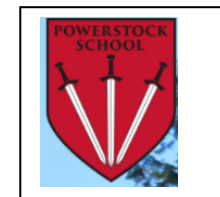


# Powerstock CE VA Primary School

## Design Technology

## Progression of skills

Make	KS1 Design and Technology National Curriculum	KS2 Design and Technology National Curriculum	KS2 Design and Technology National Curriculum
	<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> <ul style="list-style-type: none"> <li>a with support, follow a simple plan or recipe;</li> <li>b begin to select from a range of hand tools and equipment, such as scissors, graters, zesters, safe knives, juicer;</li> <li>c select from a range of materials, textiles and components according to their characteristics;</li> </ul> <p>Practical skills and techniques</p> <ul style="list-style-type: none"> <li>d learn to use hand tools and kitchen equipment safely and appropriately and learn to follow hygiene procedures;</li> <li>e use a range of materials and components, including textiles and food ingredients;</li> <li>f with help, measure and mark out;</li> <li>g cut, shape and score materials with some accuracy;</li> <li>h assemble, join and combine materials, components or ingredients;</li> <li>i demonstrate how to cut, shape and join fabric to make a simple product;</li> <li>j manipulate fabrics in simple ways to create the desired effect;</li> <li>k use a basic running stitch;</li> <li>l cut, peel and grate ingredients, including measuring and weighing ingredients using measuring cups;</li> <li>m begin to use simple finishing techniques to improve the appearance of their product, such as adding simple decorations.</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 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> <ul style="list-style-type: none"> <li>a with growing confidence, carefully select from a range of tools and equipment, explaining their choices;</li> <li>b select from a range of materials and components according to their functional properties and aesthetic qualities;</li> <li>c place the main stages of making in a systematic order;</li> </ul> <p>Practical skills and techniques</p> <ul style="list-style-type: none"> <li>d learn to use a range of tools and equipment safely, appropriately and accurately and learn to follow hygiene procedures;</li> <li>e use a wider range of materials and components, including construction materials and kits, textiles and mechanical and electrical components;</li> <li>f with growing independence, measure and mark out to the nearest cm and millimetre;</li> <li>g cut, shape and score materials with some degree of accuracy;</li> <li>h assemble, join and combine material and components with some degree of accuracy;</li> <li>i demonstrate how to measure, cut, shape and join fabric with some accuracy to make a simple product;</li> <li>j join textiles with an appropriate sewing technique;</li> <li>k 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.</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 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. Children can:</p> <p>Planning</p> <ul style="list-style-type: none"> <li>a independently plan by suggesting what to do next;</li> <li>b with growing confidence, select from a wide range of tools and equipment, explaining their choices;</li> <li>c select from a range of materials and components according to their functional properties and aesthetic qualities;</li> <li>d create step-by-step plans as a guide to making;</li> </ul> <p>Practical skills and techniques</p> <ul style="list-style-type: none"> <li>e learn to use a range of tools and equipment safely and appropriately and learn to follow hygiene procedures;</li> <li>f independently take exact measurements and mark out, to within 1 millimetre;</li> <li>g use a full range of materials and components, including construction materials and kits, textiles, and mechanical components;</li> <li>h cut a range of materials with precision and accuracy;</li> <li>i shape and score materials with precision and accuracy;</li> <li>j assemble, join and combine materials and components with accuracy;</li> <li>k demonstrate how to measure, make a seam allowance, tape, pin, cut, shape and join fabric with precision to make a more complex product;</li> <li>l join textiles using a greater variety of stitches, such as backstitch, whip stitch, blanket stitch;</li> <li>m 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.</li> </ul>



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## Design Technology

## Progression of skills

Evaluate	<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>a explore and evaluate existing products mainly through discussions, comparisons and simple written evaluations;</li> <li>b explain positives and things to improve for existing products;</li> <li>c explore what materials products are made from;</li> <li>d talk about their design ideas and what they are making;</li> <li>e as they work, start to identify strengths and possible changes they might make to refine their existing design;</li> <li>f evaluate their products and ideas against their simple design criteria;</li> <li>g start to understand that the iterative process sometimes involves repeating different stages of the process.</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>a 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 explore what materials/ingredients products are made from and suggest reasons for this;</li> <li>c 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>d evaluate their product against their original design criteria;</li> <li>e evaluate the key events, including technological developments, and designs of individuals in design and technology that have helped shape the world.</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>a complete detailed competitor analysis of other products on the market;</li> <li>b critically evaluate the quality of design, manufacture and fitness for purpose of products as they design and make;</li> <li>c evaluate their ideas and products against the original design criteria, making changes as needed.</li> </ul>
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