



Fairlawn Primary School Design and Technology Curriculum

<p>DESIGN - Explain what product they will be designing and making, explain who their product will be used by, describe what their product will be used for discuss what their steps for making could be, represent ideas through talking and drawing and computing. (Designs should be purposeful, functional, appealing and based on design criteria)</p> <p>MAKE - Choose suitable tools for making, follow safety and food hygiene procedures, measure, mark, cut and shape materials and components, join, assemble and combine materials and select from and use a range of materials and components, including construction materials, textiles and ingredients.</p> <p>EVALUATE - Talk about their design ideas and what they have made Make simple judgements of how the product met their design ideas</p> <p>TECHNICAL KNOWLEDGE (Across KS1) - Build structures and explore how they could be made stronger, stiffer and more stable. Explore and use mechanisms.</p>	<p>Suggested activities:</p> <p>Measure, mark, cut simple shapes from textiles and joining using glue or tying (e.g. bunting)</p> <p>Make a product that moves using a turning mechanism or a level/hinge (e.g. moving pictures)</p> <p>Build structures and explore how they can be made stronger, stiffer and more stable (e.g. bridge building)</p> <p>Cooking and Nutrition</p> <p>Understand that food comes from plants or animals, understand that food has to be farmed, caught, or grown, identify that people should eat at least 5 portions of fruit and vegetables a day, prepare simple dishes hygienically and use cooking techniques such as: cutting, peeling and grating.</p>
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<p>explain what product they will be designing and making, explain who their product will be used by, describe what their product will be used for and how it will work, explain why their product is suitable for the intended user, Represent ideas through talking, drawing and computing.</p> <p>(Designs should be purposeful, functional, appealing and based on design criteria)</p> <p>MAKE - Choose suitable tools for making and explain why they should be used, follow safety and food hygiene procedures, measure, mark, cut and shape materials and components, join, assemble and combine materials and select from and use a range of materials and components, including construction materials, textiles and ingredients.</p> <p>EVALUATE - Talk about their design ideas and what they have made, make simple judgements of how the product met their design ideas and suggest how their product could be improved</p> <p>TECHNICAL KNOWLEDGE (across KS1)- Build structures and explore how they could be made stronger, stiffer and more stable. Explore and use mechanisms.</p>	<p>Suggested activities:</p> <p>Build structures and understand how they can be made stronger, stiffer and more stable (Build a Skyline)</p> <p>Design and build a vehicle using axels and a wheel mechanism (Stone Age) Joining using a simple stitch (Bunting for Egypt topic).</p> <p>Cooking and Nutrition</p> <p>Understand that food comes from plants or animals, understand that food has to be farmed, caught, or grown, identify that people should eat at least 5 portions of fruit and vegetables a day, prepare simple dishes hygienically and use cooking techniques such as: cutting, peeling and grating.</p>
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<p>DESIGN - Understand and gather information about what a particular group or people want from a product, describe the purpose of their product and how it will work, identify design features that will appeal to intended users, explain how parts of their product works, generate realistic ideas that meet needs of user, choose materials to use based on suitability of their properties, represent ideas in diagrams, annotated sketches and computer based programmes (where appropriate) and create prototypes.</p> <p>MAKE - Choose suitable tools for making whilst explaining why they should be used and use design criteria whilst making ,follow safety and food hygiene procedures, measure, mark, cut and shape materials and components with some accuracy, join, assemble and combine materials and components with some accuracy, use finishing techniques with some accuracy.</p> <p>EVALUATE - Use design criteria to evaluate product – identifying both strengths and areas for development, consider the views of others, including intended user, whilst evaluating product.</p> <p>TECHNICAL KNOWLEDGE (across KS2)- apply their understanding of</p>	<p style="text-align: center;">Suggested activities:</p> <p>Use folding and scoring to shape materials accurately Make cuts accurately (scissors and saws)</p> <p>Make holes accurately (punch, drill) (Clocks project)</p> <p>Join materials to make products using permanent and temporary fastenings (Toy / shadow puppet project).</p> <p>Apply computer programming skills to control products e.g. Lego</p> <p>WeDo. Cooking and nutrition Understand which foods are reared, caught, or grown and that this happens in the UK and across the globe, understand that recipes can be changed by adding or taking away ingredients, understand that the seasons can affect food produce, identify foods that this make up a healthy diet, identify that food and drink are needed to provide energy for a healthy and active lifestyle Identify that people should eat at least</p>
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<p>how to strengthen, stiffen and reinforce more complex structures, understand and use mechanical systems in their products, understand and use electrical systems in their products, apply their understanding of computing to programme, monitor and control their products.</p>	<p>5 portions of fruit and vegetables a day, prepare simple dishes hygienically and safely, where needed with a heat source, use cooking techniques such as: chopping, peeling, grating slicing, mixing, spreading, kneading and baking.</p>
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<p>group or people want from a product, describe the purpose of their product and how it will work, identify design features that will appeal to intended users, explain how parts of their product works, develop their own design criteria and use for planning ideas, generate realistic ideas that meet needs of user and take into account availability of resources, choose materials to use based on suitability of their properties, represent ideas in diagrams, annotated sketches and computer based programmes (where appropriate) and create prototypes.</p> <p>MAKE - Choose suitable tools for making whilst explaining why they should be used and use design criteria whilst making ,follow safety and food hygiene procedures, measure, mark, cut and shape materials and components with some accuracy, join, assemble and combine materials and components with some accuracy, use finishing techniques with some accuracy.</p> <p>EVALUATE - Use design criteria to evaluate product – identifying both strengths and areas for development, consider the views of others, including intended user, whilst evaluating product.</p> <p>TECHNICAL KNOWLEDGE (across KS2)- apply their understanding of</p>	<p>Select appropriate textiles for a product and use sharp scissors accurately to cut textiles; know that the texture and properties of material affect choice and add to a product e.g. applique embroidery) (T-shirt project)</p> <p>Use electrical systems in a project (switches, bulbs, buzzers, motors) (Battery operated lights project)</p> <p>Cooking and nutrition</p> <p>Understand which foods are reared, caught, or grown and that this happens in the UK and across the globe, understand that recipes can be changed by adding or taking away ingredients, understand that the seasons can affect food produce, identify foods that this make up a healthy diet, identify that food and drink are needed to provide energy for a healthy and active lifestyle Identify that people should eat at least 5 portions of fruit and vegetables a day, prepare simple dishes hygienically</p>

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<p>group or people want from a product using questionnaire & surveys, describe the purpose of their product and how it will work, identify design features that will appeal to intended users, explain how parts of their product works, develop their own design criteria and use for planning ideas, generate realistic ideas that meet needs of user and take into account availability of resources, choose materials to use based on suitability of their properties, represent ideas in diagrams, annotated sketches and computer based programmes (where appropriate) and create prototypes.</p> <p>MAKE - Choose suitable tools for making whilst explaining why they should be used and use design criteria whilst making, follow safety and food hygiene procedures, measure, mark, cut and shape materials and components with some accuracy, join, assemble and combine materials and components with some accuracy, demonstrate problem solving skills when encountering a mistake or practical problem use finishing techniques with accuracy.</p> <p>EVALUATE - Use design criteria to evaluate product – identifying both strengths and areas for development, consider the views of others, including intended user, whilst evaluating product.</p> <p>TECHNICAL KNOWLEDGE (across KS2)- apply their understanding of how to strengthen, stiffen and reinforce more complex structures,</p>	<p style="text-align: center;">Suggested activities:</p> <p>Reinforcing / strengthening joints & frameworks (Investigating strong structures – ('Marbulous' structures project)</p> <p>Using gears / cam mechanisms (Automated Animals) Cooking and nutrition</p> <p>Understand which foods are reared, caught, or grown and that this happens in the UK and across the globe, understand that the seasons can affect food produce, understand that sometimes raw ingredients need to be processed before they can be used in cooking (eg. De - feathering a chicken) Understand that recipes can be adapted to change the appearance, taste and aroma of a dish. Sort food into 5 groups that makes a 'balanced plate' and Identify that this makes up a healthy diet, identify that food and drink provide certain nutritional and health benefits which support a healthy lifestyle, identify that people should eat at least 5 portions of fruit and vegetables a day, prepare simple dishes hygienically and safely, where needed with a heat source. Use cooking techniques such as:</p>
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