

Design Technology Curriculum Overview

Year 1

| Term | Theme | Knowledge and understanding | Skills | What I will know and remember | Vocabulary |
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| 1 | Pirate Paddy's Packed Lunch Problems | <p>Design Design purposeful, functional, appealing products for themselves and other users based on design criteria.</p> <p>Make Select from and use a range of tools and equipment to perform practical tasks. Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.</p> <p>Evaluate Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria.</p> <p>Technical Knowledge Build structures, exploring how they can be made stronger, stiffer and more stable.</p> | <p>Explore an existing product and describe its problems and positives. Draw a design and describe it. Build strong structures. Test their own product and suggest improvements.</p> | <p>I can evaluate a product's ability to do a job well. I can investigate and evaluate existing products. I can explore different materials and decide which will be useful for making my product. I can design a new product that meets the design criteria. I can select and use tools and equipment to make a product. I can test a product and then evaluate it. I can use my evaluations to make improvements to my product and then retest and evaluate it. I can improve my product by making it stronger, stiffer, more stable and more waterproof.</p> | <p>Explore Product Materials Design criteria Waterproof Stable Stiff Purpose Compare Evaluate</p> |

| <u>End of unit assessment</u> | | | | | |
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| <u>Working towards</u> | | <u>Working at</u> | | <u>Working above</u> | |
| 2 | Fabric faces | <p>Design Design purposeful, functional, appealing products for themselves and other users based on design criteria. Generate, develop, model and communicate their ideas through talking, drawing and templates.</p> <p>Make Select from and use a range of tools and equipment to perform practical tasks (for example cutting, shaping, joining and finishing). Select from and use a wide range of materials including textiles according to their characteristics.</p> <p>Evaluate Explore and evaluate a range of existing products.</p> | <p>Use a template to shape a piece of fabric. Discuss ideas as they develop and say what their design has to do to achieve the design criteria. Create a fabric face that reflects their own face. Stitch two pieces of fabric together using a running stitch and add features using appropriate materials and joining techniques. Evaluate their product saying what they like and what they could improve.</p> | <p>I can explore fabrics. I can explore and evaluate how hair is created using different materials. I can select a material and shape it. I can join fabrics together and attach different materials. I can cut on a line and use a template to create my fabric face shape. I can create and follow a design criteria. I can think of ideas, discuss them and then create a design. I can carefully select fabrics and materials. I can follow my design carefully and use different tools to make my fabric face.</p> | <p>Fabric Materials Template Textiles Improve Appearance Shaping Mark out</p> |

| | | <u>End of unit assessment</u> | | | |
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| <u>Working towards</u> | | <u>Working at</u> | | <u>Working above</u> | |
| 3 | Lego League | <p>Design Design purposeful, functional, appealing products for themselves and other users based on design criteria. Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.</p> <p>Make Select from and use a range of tools and equipment to perform practical tasks. Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.</p> <p>Evaluate Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria.</p> | <p>Designing Draw on their own experience to help generate ideas and research conducted on criteria. Begin to understand the development of existing products. Start to suggest ideas and explain what they are going to do. Begin to develop their ideas through talk and drawings. Identify a target group for what they intend to design and make based on design criteria.</p> <p>Making Begin to make their design using appropriate techniques. Begin to build structures, exploring how they can be</p> | <p>Design I can draw on my own experience to help generate ideas and research conducted on criteria. I can begin to understand the development of existing products. I can start to suggest ideas and explain what I am going to do. I can begin to develop my ideas through talk and drawings. I can identify a target group for what I intend to design and make based on design criteria.</p> <p>Make I can begin to make my design using appropriate techniques. I can begin to build structures, exploring how they can be made stronger, stiffer and more stable. I can explore and use mechanisms (e.g. levers, sliders, wheels and axles).</p> | Build Structures Mechanisms Conducted |

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| | | <p>Technical knowledge Build structures, exploring how they can be made stronger, stiffer and more stable. Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</p> | <p>made stronger, stiffer and more stable. Explore and use mechanisms (e.g. levers, sliders, wheels and axles). Begin to assemble, join and combine materials and components together. Begin to use simple finishing techniques to improve the appearance of their product.</p> <p>Evaluating Start to evaluate their product by discussing how well it works in relation to the purpose (design criteria). When looking at existing products explain what they like and dislike about products and why. Begin to evaluate their products as they are developed, identifying strengths and possible changes they might make.</p> | <p>I can begin to assemble, join and combine materials and components together. I can begin to use simple finishing techniques to improve the appearance of my product.</p> <p>Evaluate I can start to evaluate my product by discussing how well it works in relation to the purpose (design criteria). I can explain what they like and dislike about products and why. I can begin to evaluate my products as they are developed, identifying strengths and possible changes I might make.</p> <p>Programme I can describe what happens when I press buttons on a robot. I can press the buttons in the correct order to make my robot do what I want. I can describe what actions I will need to do to make something happen and begin to use the word 'algorithm'.</p> | |
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| | | | | <p>I can begin to predict what will happen for a short sequence of instructions.</p> <p>I can begin to use software/apps to create movement and patterns on a screen.</p> <p>I can use the word 'debug' when I correct mistakes when I program.</p> | |
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| <u>Working towards</u> | <u>End of unit assessment</u> | <u>Working at</u> | <u>Working above</u> |
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