



Ferndale Primary and Nursery School

DT: Year 3

| Projects | Design: develop, plan and communicate ideas | Make: working with tools, equipment, materials and components to make quality products. | Evaluate: processes and products | Technical knowledge: materials and structures | Technical knowledge: mechanisms | Technical knowledge: textiles | Technical knowledge: electrical systems | Technical knowledge: food and nutrition |
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| Stone age levers and linkages T2 Shell structure s T4 Food preparation on T6 | Begin to design with a purpose by identifying opportunities to design and recognising that their design needs to be achievable and meet a range of needs. Begin to research products and needs of others. | Can select from a wider range of tools and materials, saying what they have chosen. Beginning to use a wider range of tools and equipment to perform tasks. <u>select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. Select from and use a wider range of materials and components, including</u> | Evaluate their work against the design criteria. Say what they would change to make it better and why. Evaluate existing products, giving reasons for how well they fit the purpose. | Measure and join appropriate materials (including paper and card) with accuracy and using a variety of materials. Use tools to cut and make holes. Begin to make freestanding structures that are strong. T4 <u>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.</u> | Begin to try new ideas such as lever and linkages to create movement. Check product and make alterations to make it better. T2 <u>Understand and use mechanical systems in their products [for example, gears, pulleys, cams,</u> | Select appropriate textiles for a product. Use techniques to join more than one piece of fabric (basic running stitch) | Create a circuit within a product. Begin to program a computer to control the product. <u>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> | Understand that food is grown, caught and reared. Describe how balanced diets are healthy for us. Select ingredients, prepare and cook dishes (predominantly savoury), presenting them attractively. Develop skills of peeling, chopping, slicing, grating, spreading, kneading and baking. T6 |



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| | <p>Describe and design using accurately labelled pictures, words, models, diagrams, including the use of computing. Begin to make prototypes. <u>Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular</u></p> | <p><u>construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.</u></p> | <p>Evaluate key events and individuals that have helped shape the world of Design and Technology <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</u></p> | | <p><u>levers and linkages].</u></p> <p><u>Apply their understanding of computing to program, monitor and control their products.</u></p> | | | <p><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.</u></p> |
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| <p><u>individuals or groups.</u></p> <p><u>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</u></p> | | <p><u>individuals in design and technology have helped shape the world</u></p> | | | | | |
| <p>Language Enrichment</p> | <p>First Hand Experiences</p> | | <p>Purpose / Life Skills</p> | | <p>Previous Knowledge</p> | | |
| | <p>Stone Age – making stone age shadow puppets (links to our science topic of light) using levers and linkages.</p> | | <p>Design: develop, plan and communicate ideas Research and product design skills</p> <p>Make: working with tools, equipment, materials and</p> | | <p>Projects: Joining techniques pop up cards T2, fruit salad T4 and car model T6</p> <p>Design: develop, plan and communicate ideas Generate ideas based on previous experiences. Describe using labelled pictures, words and models and begin to use computing.</p> | | |



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| | <p>Egyptians – making a Egyptian open or closed tomb (or pyramids)</p> <p>Food preparation – making sandwiches using local produce (links to topic work) and go on a pic-nick.</p> | <p>components to make quality products</p> <p>Being able to select appropriate tools, materials and ingredients.</p> <p>Being able to evaluate and make suggestions to improve designs.</p> <p>Experience developing their skills of peeling, chopping, slicing, grating, spreading, kneading and baking.</p> <p>Being able to join fabric together using a needle safely.</p> | <p>Make: working with tools, equipment, materials and components to make quality products</p> <p>Select appropriate tools, equipment and materials.</p> <p>Evaluate processes and product</p> <p>Talk about their work against design criteria and give reasons for what they like/dislike. Look at existing products and evaluate.</p> <p>Technical knowledge: materials and structures</p> <p>Measure and join materials and use scissors with accuracy. Build freestanding structures using different materials</p> <p>Technical knowledge: mechanisms</p> <p>Use levers or slides. understand how to use wheels and axels.</p> <p>Technical knowledge textiles</p> <p>Begin to select appropriate textiles for a product. Be able to join more than one piece of fabric.</p> <p>Technical knowledge: food and nutrition</p> <p>Say where food comes from and recognise that there are different food groups. With support choose ingredients and prepare dishes. Develop peeling skills, chopping, slicing, grating, spreading, kneading and baking.</p> |
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