

Subject Oveview | Design Technology

Year Group: 3/4

Zetland Primary School

Year 3 and 4	Autumn	Spring	Summer
Design • 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 • generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes Make • 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 construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities	Cycle A Stone Age Jewellery Children will explore a range of historical artefacts/ sources to investigate jewellery worn during the Stone Age and reasons why it was worn. Children to design their own jewellery and then create their jewellery pieces through making and shaping their own salt dough, adding textures to replicate animal bones/ stones/ beads. Children to colour mix their own acrylic paint to create authentic colours, painting their pieces and then threading into a final jewellery piece. Children to evaluate their design, the making process and the final result.	Kites Children will explore a range of different kites; structures, shapes and key features. Children to experiment with different shapes, analysing which is most effective for wind resistance. Children to develop technical skills including template work, cutting, stencils, fastening and strengthening. Children to design their own kite and decide upon appropriate materials to use. Kites to be made and tested as part of the evaluation process.	Bridges and Viaducts As part of our Roman topic, children to explore the use of paper and card, learning strengthening techniques to test which column shape is the strongest. Using this to develop further fastening skills to create models of Roman architecture. Children to evaluate their design based on its strength in final stage.



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Evaluate

- 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

Technical knowledge

- apply their understanding of how to strengthen, stiffen and reinforce more complex structures
- understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]

Cooking and Nutrition

 Understand and apply the principles of a healthy and varied diet

Cycle B

Circuits

Children will apply their science knowledge to create a robot design which can light up using an integral circuit. Children to design their robot using the materials available to then to explore ways of fastening these materials together. Children need to experiment with the circuit prior to its placement within the robot. Children to evaluate their design.

Shadow Puppets

Children will use their knowledge from the science unit-light, to design and create their own shadow puppet to use within a group performance. Children to explore different materials and decide upon which is fit for purpose. Children to develop their template and cutting skills for this task. Evaluation will be linked to how clear and defined the puppet is when casting a shadow.

Magnetic Game

Children will explore a range of magnetic toys and games (maze, fishing, storyboards). Children to use these examples as a basis for their own game design. Children to create their own game and then evaluate through peer feedback/review.

Food and Nutrition

Children to identify a healthy meal based on nutritional requirements and a balanced diet. Children to identify which ingredients are needed for their recipe and to complete and order form for the office. Food to be prepared carefully with reference to food hygiene, children to develop a range of skills linked to food preparation i.e. cutting, grating, spreading Evaluation through taste test, and appealing appearance.

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