



Design and Technology Long Term Overview

Statement of Intent

Plumpton Primary School understands that Design and Technology allows pupils to solve problems, think creatively, develop ideas and evaluate finished projects. This subject offers pupils a chance to take risks and exercise their creativity through practical activities. They gain an understanding of how products are created and will develop the ability to consider the requirements of a product before making it. The intention of our DT curriculum is to ensure all the children have access to high quality teaching and learning opportunities that inspires them to use their imagination and think creatively. The children will learn knowledge of common tools and equipment used during a variety of projects and will develop practical skills to ensure these are used safely and efficiently.

Implementation

Design

Each project will start with the children investigating a range of existing products. The children will then be given a design criteria, this will then lead to them developing their ideas through discussion, sketches, diagrams and prototypes.

Make

The children will select and use the appropriate tools, equipment and materials to meet their design criteria.

Evaluate

The project will finish with the children evaluating their product against their design criteria and use feedback from others to improve their work.

Impact

By teaching D&T, we aim to help pupils:

- Develop their design and making skills,
- Develop their knowledge and understanding of design and technologies,
- Use a wide range of tools and materials,
- Learn about working safely and using protective measures,
- Work effectively both individually and collaboratively with other pupils in a variety of contexts,
- Develop the capability to create products of a high standard through skills and understanding,
- Evaluate products, made by themselves, their peer groups and external companies,
- Explore the man-made world and encourage discussion of how we live and work within it,
- Develop an interest in and an understanding of technological processes and the role of manufacturing in society,
- Become creative thinkers and learners, exploring their ideas and recording and evaluating their experiences,
- Learn how to plan, design and build finished pieces of work,
- Learn the principles of nutrition, healthy eating and how to cook

| | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
|----------------------|---|---|--|--|---|---|
| Year 1 / 2 Year A | | Structures - Bridges | | Textiles - Templates and joining techniques Puppet | | Free Standing Structures. Lighthouse - light circuit added -science |
| Year B | | Mechanisms - Sliders and levers Card | | Mechanisms - Wheels and axles Safari vehicle | | Preparing fruit and veg |
| Year 3/4 Year A | Mechanical systems - Levers and linkages - moving posters | | Electrical systems - simple circuits and switches (covered in science) Project in DT | | Structures - Shell structure - FS - boxes | |
| Year B | | Food - Healthy and varied diet | Textiles - Design and make a 3D product Use computer aided design | | Mechanical - Pneumatics Moving toys | |
| Year 5/6 Year A | Food and nutrition over the year (seasonality) *soup and a roll | Textiles - using computer aided design | Structures including electrical systems - more complex | | Structures - design and make a pier with specific criteria | |

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|--------|--|--|--|--|--|--|
| | <p>*cheese flan</p> <p>*pizza pasta bake</p> <p>*rhubarb and jelly, rhubarb crumble or rhubarb pie</p> <p>*fruit salad</p> | <p>Design and make a Christmas cushion</p> | <p>switches and circuits (covered in science)</p> <p>Project in DT - design and make a house in which lights can be turned on and off during an air raid, and sound an air raid siren.</p> | | | |
| Year B | <p>Food - celebrating culture and seasonality</p> <p>*pizza</p> <p>*apple crumble</p> | <p>Textiles - combining different fabric shapes to make a Christmas stocking</p> | | | <p>Mechanical systems - pulleys, gears, cams</p> | |