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 – Freestanding Structures	Preparing fruit and veg			
Year B		Mechanisms – Sliders and levers		Mechanisms – Wheels and axles		Textiles – Templates and joining techniques
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 *cheese flan	Textiles – using computer aided design Design and make a Christmas cushion	Structures including electrical systems – more complex switches and circuits (covered		Structures – design and make a pier with specific criteria	

	*pizza pasta bake *rhubarb and jelly, rhubarb crumble or rhubarb pie *fruit salad		in science) 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.			
Year B	Food – celebrating culture and seasonality *pizza *apple crumble	Textiles – combining different fabric shapes to make a Christmas stocking			Mechanical systems – pulleys, gears, cams	