

DESIGN TECHNOLOGY CURRICULUM

Design Technology Overview

INTENT

Design and technology is an inspiring and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values.

Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of our children.

The national curriculum for design and technology aims to ensure that all pupils:

- develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users
- critique, evaluate and test their ideas and products and the work of others
- understand and apply the principles of nutrition and learn how to cook.

IMPLEMENTATION

Each unit of work is based around the development of previously learned skills and areas of study. In KS1, areas include construction materials, textiles, food, mechanical components and in KS2 only, electrical components.

The progression of each unit involves the development of activities:

- **Investigate and evaluate activities** where children learn from a range of existing products and find out about D&T in the wider world.
- **Focussed tasks** where specific technical knowledge, designing skills and making skills are introduced, modelled and explored.
- **Design, make and evaluate assignments** where children create functional products by applying the learned skills, having users and purposes in mind.

To ensure there is essential scope, coherence and sequencing to support teacher expertise, we make use of the Kapow scheme of work for Design technology.

EYFS

In EYFS, much of DT is based on exploring and handling different materials and joining them together using simple techniques and glue. Children will learn how to handle scissors and knives, helping to develop the fine motor skills, which are essential in the effective handling of tools. Children will learn simple skills in cooking, using implements to mix and serve food. Hygiene will be an essential part of this learning. Children's ability to explain and talk about their work is also an important expectation.

Design Technology Overview

Key areas of Design technology

EYFS (Reception) Key Stage 1 and 2

Cooking and nutrition

Where food comes from, balanced diet, preparation and cooking skills. Kitchen hygiene and safety. Following recipes.



Mechanisms/ Mechanical systems

Mimic natural movements using mechanisms such as cams, followers, levers and sliders.



Key Stage 2

Structures

Material functional and aesthetic properties, strength and stability, stiffen and reinforce structures.



Textiles

Fastening, sewing, decorative and functional fabric techniques including cross stitch, blanket stitch and appliqué.



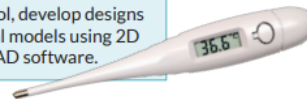
Electrical systems

Operational series circuits, circuit components, circuit diagrams and symbols, combined to create various electrical products.



Digital world

Program products to monitor and control, develop designs and virtual models using 2D and 3D CAD software.



A spiral curriculum

The scheme of work has been designed as a spiral curriculum with the following key principles in mind:

- ✓ **Cyclical:** Pupils return to the key strands again and again during their time in primary school.
- ✓ **Increasing depth:** Each time the key strand is revisited it is covered with greater complexity.
- ✓ **Prior knowledge:** Upon returning to each key strand, prior knowledge is utilised so pupils can build upon previous foundations, rather than starting again.

