

## **DESIGN AND TECHNOLOGY**

### **Nuturing and Inspiring Success in Every Child**



Design Technology prepares children to deal with tomorrow's rapidly changing world.

Design and technology Education is an inspiring, rigorous practical subject. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation. Through the study of Design and Technology, pupils combine practical skills with an understanding of aesthetic, social and environmental issues.

### **INTENT**

Our intention is that pupils will learn how to, become resourceful, innovative, enterprising and capable citizens. Using creativity and imagination, pupils will design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They will acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Through the evaluation of past and present design and technology, they will develop a critical understanding of its impact on daily life and the wider world.

### **IMPLEMENTATION**

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

### **Attainment targets**

By the end of key stage 1, pupils are expected to know, apply and understand the matters, skills and processes outlined below:

## Subject content

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts (for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment).

When designing and making pupils should be taught to:

### Design

- Design purposeful, functional, appealing products for themselves and other users based on design criteria. Year 1 and Year 2 pupils complete a DT project each term. In Year 1 pupils design Diva lamps for Divali, Easter egg baskets and hand held fans. In Year 2 pupils create a presentation box, an animal transportation carrier and design a garden for Mr Toad, from The Wind and the Willows. All pupils are encouraged to generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology. Pupils are taught to use a variety of computer skills when designing and creating.

### Make

- Select from and use a range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing). See above for specific projects.
- Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. See above for specific projects.

### Evaluate

- Explore and evaluate a range of existing products
- Evaluate their ideas and products against design criteria – see projects above
- Consider how designs and creations might be improved?

### Technical knowledge

- Build structures, exploring how they can be made stronger, stiffer and more stable
- Explore and use mechanisms (for example, levers, sliders, wheels and hinges), in their product

### Cooking and nutrition

As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.

## Key stage 1

In Years 1 & 2 pupils will have the opportunity to experience working with food once a term to help them understand the basic principles of a healthy and varied diet. They will develop a knowledge of where food comes from and have opportunities to grow fruit and vegetables in their class gardens which they can harvest and take home for cooking. (potatoes, carrots, beans, lettuce, tomatoes, courgettes etc.)

- Year 1 pupils will make a fresh fruit salad,
- Year 2 pupils will make a healthy sandwich, biscuits and pineapple pudding

## Able, Gifted and Talented

Pupils on the register for Able, Gifted and Talented have challenging targets and can be supported through extension work.

## IMPACT

Pupils will be inspired by the DT curriculum on offer at the school and will be eager to develop their curiosity and skills as they move onto the next stage of their schooling. Pupils will have a clear idea of the impact good design has on our own environments and will feel inspired to be creative and imaginative in finding solutions to everyday problems that we may encounter.

Pupils will have experienced a wide range of design opportunities and feel confident to present creative ideas in all tasks.

## Curriculum Planning Grid

Class	Autumn Term	Spring Term	Summer Term
Year 1	Design and make a festive lamp for the celebration of Diwali	Design and make an Easter basket to safely carry a small Easter egg to avoid it breaking	To design and make a hand held fan to create a cooling breeze for hot weather
	Food Tech: Make a fresh fruit salad	Food Tech: Cheese straws	Food Tech: Fish shaped pizza
Year 2	Design and make a presentation box for a Remembrance Poppy brooch	Design and make a transportation box to rescue animals from the 'Bush' in Australia	Design and make a garden for Mr Toad, from Wind in the Willows
	Food Tech: Make a healthy sandwich	Food Tech: Anzac Biscuits (Australian Recipe)	Pineapple Upside Down cake (Rainforest project)

Pupils in Key Stage 1 will keep a book recording their Design Technology work which remain in place for two years to show the progression of their ideas and skills over the key stage.

Pupils work will be recorded on the attached forms below: -

# Design & Technology – Year ?



<b>Name:</b>	
<b>Design Proposal:</b>	
<b>Date:</b>	
<b>Draw and label your design here:</b>	

# Design & Technology – Year ?



<b>Name:</b>	
<b>Design Creation:</b>	
<b>Date:</b>	
<b>What materials are needed:</b>	
<b>What went well?</b>	
<b>What was difficult?</b>	
<b>Evaluation</b>	

# Design & Technology – Year ?



**Name:**

**Date:**

**My Finished Product**