DT Policy

Wootton St Peter's

"You can't use up creativity.

The more you use, the more you have." (Maya Angelou)

Introduction

At Wootton St Peter's CE Primary School, we aim to develop a curriculum that is ambitious, broad and meets the needs of all pupils. Our children develop the skills and confidence to become caring reflective citizens and become motivated and inspired to take their own learning forward with independence, excitement and enthusiasm to meet their full potential**.** The children are encouraged to become motivated and inspired to take their own learning forward whilst celebrating and learning from our mistakes.

Terminology

At Wootton St Peter's CE Primary School, we appreciate Design and Technology as valuable subject that provides children with an opportunity to design and create products based on their understanding and knowledge.

"Design and technology is an inspiring, rigorous 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. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. 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 the nation."

(National Curriculum Document 2014)

Aims and Objectives

The objectives of teaching DT in our school are to enable children to:

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.

Design and technology is a creative, demanding and constructive subject. Pupils use their imagination and practical knowledge to design and create products that solve real-life challenges whilst considering their own and others' needs. This subject links closely to other core disciplines such as mathematics, science, computing and art. Risk-taking, innovating and acting resourcefully are skills, pupils will gain. 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.

Planning and Implementation

Design and technology is a core subjects in the National Curriculum and our planning is guided by the four key aspects of Design technology;

- **Design**
- **Make**
- **Evaluate**
- **Technical Knowledge**

At Wootton St Peter's CE Primary School, DT is linked across the curriculum. We might use a current topic or the school environment as the basis for our learning. By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programmes of study, taken from the National Curriculum.

Foundation Stage

Expressive Arts and Design is one of the 4 key areas of the EYFS framework. It involves supporting children to explore and play with a wide range of media and materials, as well as providing opportunities and encouragement for sharing their thoughts, ideas, and feelings through a variety of activities in art, music, movement, dance, role-play, and design and technology.

Children in the Foundation Stage will experience a variety of activities including

- choosing and exploring a variety of materials such as fabric, card, paper, wood, etc.
- learning how to use scissors safely and correctly.
- exploring a variety of joining techniques such as PVA glue, Pritt stick, masking tape, elastic bands, Sellotape, treasury tags, paper clips and string to join materials together.
- taking part in both cooking and non-cook food activities, learning about the importance of food hygiene.
- having opportunities to explore creating models using a wide range of construction kits that fit together in a variety of different ways.
- having opportunities to talk about and explain how they will/have made their model and to discuss what they like/dislike about it.
- folding and shaping paper in order to create a range of structures.

Key Stage 1

Through a variety of creative and practical activities, pupils should be taught the knowledge, 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
- generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology

Make

- select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]
- select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

Evaluate

- explore and evaluate a range of existing products
- evaluate their ideas and products against design criteria

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 axles], in their products.

Key Stage 2

Through a variety of creative and practical activities, pupils should be taught the knowledge, 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, school, leisure, culture, enterprise, industry and the wider environment].

When designing and making, pupils should be taught to:

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, pattern pieces and computer-aided design

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

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

- understand how key events and individuals in design and technology have helped shape the world

Technical knowledge

- apply their understanding of how to strengthen, stiffen and reinforce more complex structures
- understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]
- understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]
- apply their understanding of computing to program, monitor and control their products

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.

Pupils should be taught to:

Key stage 1:

- use the basic principles of a healthy and varied diet to prepare dishes
- understand where food comes from.

Key stage 2:

- understand and apply the principles of a healthy and varied diet
- prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques

- understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

Assessment and record keeping

Children demonstrate their ability in design and technology in a variety of different ways. Teachers will assess children's work by making informal judgements as they observe them during lessons. On completion of a piece of work, the teacher assesses the work and gives oral or written feedback as necessary to inform future progress. Older pupils are encouraged to make judgements about how they can improve their own work. Some pieces of Design Technology evidence will have written feedback in the form of the next steps to challenge and progress learning where appropriate. The subject leader will assess sketchbooks every term.

Resources

Funding for Design and Technology will be within the school budget plan for each financial year. There is a central Design and Technology budget to cover the purchase of equipment such as tools, construction kits, consumable materials, books and other resource materials. The Subject Leader will be responsible for ordering equipment and materials. It is the responsibility of each class teacher to identify additional resource needs in relation to their project. These will be purchased from Year budgets if the DT budget cannot cover them. Equipment and materials are kept in the cupboard by the hall. This will be maintained by the Design and Technology co-ordinator. Any shortages, breakages or losses should be reported immediately to the Design and Technology subject leader.

Health and Safety

It is important that children are taught the safe use of tools and equipment to enable them to participate confidently in designing and making in society. Teachers insist on good practice and have a duty to introduce children to a wide variety of production processes and the correct tools for the task. Children must design considering health and safety issues and the consequences.

Monitoring and Review:

The DT Subject Leader:

- provide guidance to individual members of staff
- keep up to date with local and national developments in design and technology and disseminate relevant information
- review and monitor the success and progress of the planned units of work across the school
- be responsible for the organisation and maintenance of design and technology resources

This policy will be reviewed annually.