

GREAT CHART PRIMARY SCHOOL

DESIGN & TECHNOLOGY POLICY

SEPTEMBER 2023



A Great Place to Discover and Learn

Vision Statement

A respectful community where we thrive and achieve our full potential as confident life long learners

Mission Statement

Preparing for life in our ever changing world, by providing opportunities to develop core values and a love of learning

Our core value is Respect

Our termly values: Team work, Ambition, Responsibility, Resilience, Kindness & Independence

Introduction

'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 2014

Intent

The planning and teaching of Design and Technology is intended to support and engage pupil's creativity as well as the technical understanding to develop their own ideas. This subject can enrich the cross curricular teaching across the school as it provides practical opportunities for pupils to design, problem solve and evaluate.

The core curriculum aims for design and technology are 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

The common threads which run throughout the school and are evident in DT teaching are: Design, Make, Evaluate and the use of technical knowledge.

Foundation stage pupils should be taught:

Expressive arts and design

This involves supporting children to explore and play with a wide range of media and materials. It involves providing children with 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.

ELG 16 Exploring and using media and materials: children sing songs, make music and dance, and experiment with ways of changing them. They safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.

ELG 17 Being imaginative: children use what they have learnt about media and materials in original ways, thinking about uses and purposes. They represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role-play and stories.

Key Stage One

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 Two

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.

Effective Learning Opportunities for all Children

At Great Chart teaching will ensure that design and technology is accessible to all children by planning Design and Technology that:

- Enables children to express their creativity independently;
- Is challenging for children of different abilities and aptitudes in each year group of each key stage;
- Motivates children, enabling them to understand and review their own learning;
- Caters for children's diverse learning needs;
- Overcomes potential barriers to learning and assessment for individuals and groups of children;
- Differentiating work through activities and expected outcomes;
- Works with other adults to support all ability groups.

Planning and Implementing the Great Chart Design and Technology Policy

Termly curriculum maps will feed into mid-term planning. Great Chart Primary School builds on the skills from the updated National Curriculum (2014) and all teachers link these skills with their year group's topic, enabling cross curricular links which are mutually enriching. Progression is ensured by building on knowledge, skills and understanding achieved by individual children.

Health and safety

The safety of the children and staff must be promoted at all times. Class teacher to make risk assessments on equipment used and ensure that the equipment is used properly. Children must be given accurate instructions on how to use all equipment safely and appropriately. D.T lead to offer support and advice when needed. All accidents are to be reported to a Health and Safety Officer who will make decisions on appropriate actions.

Resources

Resources are ordered by each year group, as part of their year group budget, in respect of the units of work planned. Each year group will be in charge of keeping and managing their own resources. In addition to this the Design Technology cupboard is equipped with specialist equipment in organised boxes that can be used for a unit of work and must be returned. If any equipment is damaged or is in need of replenishing the design and technology leader should be notified.

Impact

The D.T lead will monitor the planning and delivery of a range of aspects covered across the school. To support teacher judgements, samples of work will be monitored and shared to ensure coverage and the consistent progression of knowledge throughout the school.

Record Keeping and Assessment

Examples of children's work will show individual progress. Children will be given opportunities to self-assess their work as well as being given feedback from the teacher and other pupils. We will develop a school portfolio, either digital or physical, containing examples of pupils' work representing key aspects of Design Technology activities for each year group. Each teacher will pass on books, for their class, on to the next teacher each year. This will form the basis of agreed standards achieved. Teachers will use Target tracker to assess the children's progress each year - the following teacher will make use of this in order to inform their planning for the class for the next academic year.

Review

This policy is monitored through:

- Regular scrutiny of children's work
- Regular monitoring and evaluation of planning
- Evaluation and analysis of assessment evidence
- Lesson observations to monitor the quality of teaching and implementation of planning
- Pupil interviews and questionnaires

This policy is reviewed by staff and governors every year. Parents are most welcome to request copies of this document and comments are invited from anyone involved in the life of the school.

Updated by Georgia-Rae Mowl July 2023