



Harbertonford C of E Primary DT Curriculum Statement



Intent

At Harbertonford, we value Design Technology as an important part of the children's entitlement to a broad and balanced curriculum. Design and technology is an inspiring, rigorous and practical subject which encourages children to learn to think and intervene creatively to solve problems both as individuals and as members of a team.

We aim for the children to have fun whilst developing creativity, technical and practical expertise. Using creativity and imagination, making links across the curriculum, children design and make purposeful products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values.

Implementation

Design and Technology will be taught with links to the 'topic' where possible as part of a high-quality, engaging and progressive curriculum. We will ensure that pupils learn through a variety of creative and practical activities and we strive to give every opportunity to solve real life problems and to consider alternative materials specific to a particular audience.

We believe knowledge, understanding and skills are needed to engage children in a coherent process of designing and making. We encourage children and provide relevance by linking projects to our topic work and engaging 'home projects' as appropriate.

We encourage children to learn from mistakes and share their reflections and successes at the end of every unit as part of the evaluation process.

Curriculum coverage will be monitored and evidenced using Microsoft SWAY documents.

Impact

Our children will 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 who can perform everyday tasks confidently.

High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

Through evaluation of their own, and past and present design and technology, the children develop a critical understanding of its impact on daily life and the wider world.

The National Curriculum

Aims

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.

KS1

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.

KS2

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 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 design criteria technical knowledge.

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.

- 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

KS1

Pupils should be taught to:

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

KS2

Pupils should be taught to:

- 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.