

Peters Hill Design Technology Policy

The Policy is designed to:

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.

Design Technology In School

Aims

- 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 Technology in the Curriculum

Attainment Targets

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, e.g. the home, school, leisure, culture, enterprise, industry and the wider environment.



Teaching and Learning

Early Years:

Design Technology is taught in Reception as an integral part of the topic work through child-initiated and adult led activities. The children are given the opportunity investigate:

- Existing products
- Construction kits
- A variety of materials/ingredients
- Simple tools
- Different techniques for shaping, joining and assembling

These investigations will lead to children being able to construct with a purpose in mind. Children will be given the to opportunity to consider what they are making and why.

Key Stage 1

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

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 – refer to separate policy written by K.Lloyd

Design Technology Curriculum Planning:

At Peters Hill Primary School Design Technology is taught through a topic approach alongside other foundation subjects. Our curriculum is a carefully planned cycle to engage and excite all our learners. Our medium-term plans map out the skills and themes covered each term for each key stage. These plans define what we will teach and ensure an appropriate balance and distribution of work across each term.



Resources:

Materials, e.g. clay, wood, card, glue, food etc. should be ordered/purchased by year group leaders as needed.

Assessment & Monitoring:

At Peters Hill Primary School assessment is an integral part of the teaching process. Assessment is used to inform planning and to facilitate differentiation. The assessment of children's work is on going to ensure that understanding is being achieved and that progress is being made. Feedback is given to the children as soon as possible, and the school's Marking Policy will guide marking work. Monitoring takes place regularly through sampling children's work, teacher planning, book scrutiny (where books have been used) and learning walks.

Progress, Continuity and Differentiation

To ensure progression, all children will be taught the same content and given the same opportunities. Differentiation will be achieved through individual support and intervention, not through changing content. Children who find skills challenging, e.g. cutting with scissors, should be given opportunities to practise and develop these skills.

Cross-curricular Links

Design Technology is a subject that has opportunities for cross-curricular links with many other subject areas and brings to learning to life. It is a motivating context for discovering literacy, mathematics, science, art, PSHE and ICT. Primary Design and Technology also provides a firm basis for later learning in the subject and a platform for developing skills in literacy and numeracy.

Approaches to cross-curricular work could include:

- English
 - Speaking and listening – discussion of existing product and own/others work
 - Reading – researching exiting products
 - Writing – project planning and evaluation
- Maths
 - Measuring materials/ingredients
 - Data handling for product research
 - Shape and space in product design



- Science
 - Materials and their properties
 - Electrical circuits
 - Products relating to forces and motion
 - Nutrition
- Art
 - Drawing
 - Painting
 - Working with textiles
 - Modelling
 - Printing
 - Ceramics
- ICT
 - Communicating and presenting programs
 - Art and design programs
 - Internet research
- History, Geography and RE
 - Creating products linked to the past, other cultures or religions
- Music
 - Creating a musical instrument

This Policy was discussed and agreed by the governing body at it's meeting on

1st May 2024

Reviewed by Sophie Felles April 2024.

