



GREENLEAS PRIMARY SCHOOL

DESIGN AND TECHNOLOGY POLICY

Overview

At Greenleas Primary School every child matters. We want our children to be confident, motivated and independent learners who have respect for others. Our rich curriculum is the means of a high-quality education, providing all with good opportunities for enjoyment and achievement.

It is our aim at Greenleas that Design and Technology (DT) prepares our children to take part in the development of tomorrow's rapidly changing world. Creative thinking encourages children to make positive changes to their quality of life. Design and Technology encourages children to become autonomous and creative problem-solvers, both as individuals and as part of a group. It enables children to identify needs and opportunities and to respond by developing ideas and making products. Through the knowledge of Design and Technology, children combine practical skills with an understanding of visual, environmental and social issues, as well as functions and industrial practices. This allows them to reflect on and evaluate present and past design and technology, its uses and impacts. Teachers encourage children to develop their investigating, designing, making and evaluating skills by thinking and intervening creatively.

Intent

Through the teaching of Design and Technology our aim is:

- To give children the opportunity to take part in creative and practical activities
- To understand the importance of design and technology in the wider world
- To develop imaginative thinking in children and to enable them to talk about what they like and dislike when designing and making things
- To enable children to talk about how things work, and to draw and model their ideas
- To explore computing as a means of design
- To encourage children to be analytical and critical when they are considering and analysing products
- To encourage children to select appropriate materials, tools and techniques for making a product
- To follow safe procedures when using equipment
- To explore attitudes towards the world and how we live and work within it;
- To develop an understanding of technological processes and products, their manufacture and their contribution to society;
- To foster enjoyment, satisfaction and purpose in designing and making things.

Implementation

EYFS

The EYFS framework is structured very differently to the national curriculum as it is organised across seven areas of learning rather than subject areas. The team will plan for children to experience creative opportunities and develop key skills and techniques within the EYFS curriculum. There will be a focus on developing fine motor skills and learning how to plan, design and produce the finished project. The reception class will be, where appropriate, included in whole school projects.

Expressive Art and Design

- Explore, use and refine a variety of artistic effects to express their ideas and feelings.
- Return to and build on their previous learning, refining ideas and developing their ability to represent them.
- Create collaboratively, sharing ideas, resources and skills.
- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.
- Share their creations, explaining the process they have used.

Physical Development

- Progress towards a more fluent style of moving, with developing control and grace.
- Develop their small motor skills so that they can use a range of tools competently, safely and confidently.
- Use their core muscle strength to achieve a good posture when sitting at a table or sitting on the floor.
- Use a range of small tools, including scissors, paintbrushes and cutlery.

Key Stage 1:

When designing and making, pupils should be taught to:

- 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
- 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
- explore and evaluate a range of existing products
- evaluate their ideas and products against design criteria
- 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
- use the basic principles of a healthy and varied diet to prepare dishes
- understand where food comes from.

Key Stage 2:

When designing and making, pupils should be taught to:

- 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
- 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
- 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
- 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
- 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.

Impact

We ensure the children:

- 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 and 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. Children will design and make a range of products. A good quality finish will be expected in all design and activities made appropriate to the age and ability of the child.

Children learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop an understanding of its impact on daily life and the wider world.

Strategies

- The 2014 Design and Technology National Curriculum is taught to pupils in a creative and imaginative way through cross curricular topic planning.
- A programme of study for Design and Technology is used to ensure progression and continuity of key skills.
- Each band is responsible for planning activities that cover the expected skills. Cross curricular links should be evident within planning. Planning sets out clear learning intentions building upon prior knowledge, with progression and challenge evident.
- The Design and Technology co-ordinator is responsible for leading, managing, monitoring, evaluating and reviewing the curriculum.
- Opportunities are taken to enhance provision through: educational visits out of school, involvement of parents and visitors, the use of the school grounds and wider environment.
- Opportunities are used within the curriculum to encourage the development of school and British values.
- A range of high-quality resources, including ICT, are used to underpin the curriculum.
- Assessment is an integral part of the teaching process. Progress against skills is tracked. Formative assessment is mostly carried out informally by teachers and should be based on the planned assessment opportunities.
- Children's progress in Design and Technology is reported to parents through the annual pupil report.

Health and Safety

The safety of our children is paramount at all times. Teachers explicitly teach the safe use of tools and equipment to all children. It is the duty of all staff to recognise and assess the hazards and risks to themselves and others when working with food and other materials. Teachers must take action to control these risks and hazards, and risk assessments must be completed for all new or potentially hazardous activities.

Equal Opportunities and Inclusion

Children with special needs or physical disabilities will be differentiated for and supported appropriately, to ensure development of skills and equal access to the Design and Technology curriculum. All children will be supported through differentiation, adaptation or adult support, to enable equal access to learning in Design and Technology.

Outcomes

Design and Technology will enrich all other areas of the curriculum by equipping children with vital skills for the future. Children will learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens.

Examples of planning and children's work will be kept in a scrapbook in order to share good practice with others within the school and beyond. Design and Technology work will be celebrated and displayed wherever possible to enable it to make a significant impact on learning.

Revised and adopted by the Governing Body January 2023