

Cleeve Prior C of E Primary School D.T. Curriculum Offer



Our vision

Our vision is to provide a caring and nurturing environment, where everyone is given opportunities to learn, discover and grow in our changing world. We will live out our Christian values of Respect, Hope, Love, Forgiveness, Trust and Honesty and strive to guide our community into leading fruitful lives, learning from Jesus's teachings, to love themselves and one another in order to achieve success.

Teach children how they should live, and they will remember it all their life.

Proverbs 22:6

Cleeve Prior Church of England Primary School – Learning and growing together in God's family.

Intent

At Cleeve Prior C of E Primary School, we aim to provide all pupils with a sense of achievement as well as enjoyment and fun through an appropriately balanced and developmental range of D.T. learning opportunities. It is our intent that we make D.T. an enjoyable learning experience. Through Design and Technology, we want our pupils to take ownership of their own ideas and provide them with the opportunity to create something unique and that serves a purpose. This subject is particularly vital in our school as it presents pupils with a wide range of careers that they may not have otherwise considered, allows teachers to provide rich experiences that pupils may not otherwise experience and reaches pupils who may excel at practical tasks.

Each class will be presented with a series of real and relevant problems that will springboard into projects, with pupils encouraged to draw on a range of skills (including those from subjects such as mathematics, science, computing and art) to solve them innovatively and resourcefully.

These projects will be carefully chosen to build on prior knowledge in Design and Technology and to develop the creative, technical and practical expertise needed for the future. Emphasising the importance of iterative design, children will develop their resilience and independence by consistently evaluating their work throughout every step of a project.

As designers, our children will be responsible for investigating and critiquing preexisting products, identifying the needs of users, developing and recording their own designs, problem-solving any arising issues, and making a product that satisfies their own design criteria, all whilst considering the relevant context of the project. Furthermore, they will also receive direct experience in working with a wide-range of age-appropriate tools and materials, developing their technical knowledge. In order to develop our pupils' understanding of nutrition, every class will also be challenged with a food-based project, providing them with the opportunity to learn how to cook a range of nutritious, balanced and tasty food.

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.

Implementation

EYFS

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.

ELG: Creating with Materials

Children at the expected level of development will:

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.

KS1

Key Stage 1 National Curriculum Attainment:

Pupils should be able to:

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.

KS2

Key stage 2 National Curriculum attainment:

Pupils should be able to:

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.

Impact

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, children 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, including subject specific vocabulary, and draw on disciplines such as mathematics, science, engineering, computing and art. Our 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 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.

D.T. assessment is ongoing to inform teachers with their planning, lesson activities and differentiation. Summative assessment is completed at the end of each unit to inform leaders of the improvements or skills that still need to be embedded. D.T. is monitored throughout all year groups using a variety of strategies such as lesson observations and pupil interviews.