Dinting Church of England Design & Technology Policy

Statement of Intent

At Dinting Church of England Primary School, we believe in a broad and balanced curriculum where all children deserve and have the right to explore all areas of the curriculum, ensuring that children are able to express themselves through different medias. As a Church of England School we aim to ensure Christian values are built into the ethos and teaching across the whole curriculum, promoting attitudes of mutual respect and responsibility.

Luke 10:27

'Loving our neighbour as we love ourselves'

Our aims in teaching Design and Technology are that all children learn to:

- Find enjoyment in design and construction.
- Discover a sense of purpose and fulfilment in artistic expression.
- Use a range of materials and techniques competently.
- Develop their skills in evaluating.
- Value their own work and respect the work of others.
- Discuss their work using a rich variety of appropriate vocabulary.
- Express and explore their ideas confidently.
- Experiment with a variety of different materials.

Why we value and regard Design and Technology as an important subject:

- It allows children to achieve a sense of fulfilment throughout life.
- To help children develop practical life skills.

The National Curriculum

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. To 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. To critique, evaluate and test their ideas and products and the work of others. To understand and apply the principles of nutrition and learn how to cook.

Key stage 1

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 2

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.

Learning Environment

- Activities are organised at the teacher's discretion and according to the availability of materials. Design & Technology activities may be carried out individually, as a small or large group, or as a whole class activity.
- Teachers will make provision for varying learning styles to be utilised. These include auditory, visual and kinaesthetic styles.
- Planning for Design & Technology is provided for in medium and long-term plans.

Assessment and Recording

In all areas of the curriculum assessment is an essential part of teaching. Class teachers should keep records of the work carried out by pupils and levels they achieve with their work and the skills they have used. Photographs are a useful way to document this evidence. KS1 and KS2 use Twinkl assessment as summative assessment to be used at the end of each term.

Formative assessment is used to guide the development of individual pupils in their work in Design & Technology. It includes recognising each child's progress in each aspect of the subject, determining what each child has learnt and what their next step should be.

Parental Involvement

As with all areas of children's learning, we need the support of parents and carers to help us make sure all children make the most out of their potential. This could include helping with any research or homework which may be set. It could also be to encourage their children to use these skills outside of the school setting.

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