

**Dilton Marsh Church of England Primary School**

**DT Policy**

This policy has been developed by a working group made up of:

* Head teacher: Jill Hibbs
* DT lead: Sophie Lazar

**Schedule for review of this policy:**

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| --- | --- |
| Created by: | Sophie Lazar  |
| The implementation of this policy will be monitored by: | Sophie Lazar  |
| Monitoring will take place: | Termly |
|  |  |
| Next review date: | March 2024 |

This Policy should be read in conjunction with the following:

* Specific Subject Policies
* SEND policy
* Assessment, Marking and Feedback Policy

**Our vision**

At Dilton Marsh C of E Primary School we value D&T as an important part of the children’s entitlement to a broad and balanced curriculum that is relevant to our rapidly changing world. We encourage children to use their creativity and imagination, to design and make products that solve relevant problems within a variety of contexts.

Together, we strive to provide a safe, nurturing and challenging environment within our Christian ethos of kindness and respect.

We share a passion for life-long learning and strive for the best for ourselves, others and the World.

Children are encouraged to become independent, curious and resilient learners with the ability to learn from their mistakes and accept challenges.

“For Nothing is Impossible with God.”

**Luke 1 : 37**

Through our school vision, we strive to have children who ‘have a passion for life-long learning’ and ‘curiosity’ to explore different designers and develop a more rigorous understanding of D&T. We want our children to learn to think and intervene creatively to solve problems both as individuals and as members of a team considering their own and others’ needs, wants and values. Our D&T curriculum provides children with opportunities to research, represent their ideas, explore and investigate, develop their ideas, make a product and evaluate their work. Children will be exposed to a wide range of media including textiles, food and woodwork; through this, children will develop their skills, vocabulary and resilience.

**Introduction**

Design and technology is an inspiring, rigorous and practical subject which allows children to make sense of appliances and processes in their environment: primarily through first-hand experience and exploration. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own needs, wants and values and those of others. Design and technology lessons enhance pupils’ natural curiosity as they are provided with the opportunity and means to apply and develop further, the skills that they have already mastered.

We currently live in a world with rapidly changing technologies. Design and technology prepares children to participate in technologies of the present and future. The subject encourages children to work as individuals and members of a team to become autonomous and creative problem solvers. Children use physical resources to create a product that meets a perceived need which leads to children feeling a sense of satisfaction and accomplishment. The subject ignites an interest in design which helps children to understand how, throughout history, design has been used to meet peoples needs and to progress. Children are given the opportunity to evaluate current and historical designs, which encourages them to think critically about their own designs.

Within the subject there are numerous opportunities for cross curricular work, including ICT. Mathematical skills and required for calculating the required dimensions or amounts; scientific skills may be necessary to test the properties of materials to find one that is suitable; historical understanding could be used for accurate designs from the past and their artistic skills will be employed to create a design.

**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.

**Teaching and learning**

The Design and Technology curriculum allows children to experience the main areas of artistic study as defined in the National Curriculum.

Our teaching enables children to have opportunities to:

* Generate ideas through group discussions either led by the teacher or between pupils
* Gain knowledge and understanding of a wide range of materials
* Work with cross curricular links and units in groups or an individual basis to produce a design
* Make freehand drawings and models to communicate their ideas explaining their choice of tools or equipment
* Evaluate their designs and identify strengths and weaknesses in a positive manner
* Use simple mechanisms
* Gain a knowledge and understanding of health and safety aspects
* Gian insights into how the design process applies in real life situations
* Use appropriate vocabulary and terminology

**Curriculum**

The children undertake a balanced programme that takes account of abilities, aptitudes and physical, emotional and intellectual development. Through Design and Technology, the children learn a range of skills, concepts, attitudes, techniques and methods of working.

**Early Years Foundation Stage**

Pupils explore and use a variety of media and materials through a combination of adult directed and independent activities.

* Children sing songs, make music and dance, and experiment with ways of changing them
* They safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.
* Children use what they have learnt about media and materials in original ways, thinking about uses and purposes
* They represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role-play and stories.

**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 me

**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.

At Dilton Marsh C of E Primary School we use Plan Bee which is a meticulously designed scheme to ensure coverage of the National Curriculum. Skills are developed across the key stages meaning that learning is reviewed and built upon each year in a sequential, cyclical way.

**Hygiene, Health and Safety**

Children may be using tools and materials that could possibly present a hazard if they are not used correctly and with care. The correct safe methods will be modelled to the children and they will be made aware of the risks involved if equipment is not used safely. Teachers will promote these in order to ensure the health and safety of their pupils. Children will also be taught the importance and necessity of looking after equipment by using it correctly and keeping it clean and tidy. To ensure safety at all times pupils should:

* Collect tools and equipment safely
* Follow the clear, concise instructions given
* Only move around the room when it is absolutely necessary
* Wear safety equipment if it is required

**Inclusion**

All learning activities will respond to individual children’s needs. A flexible approach will be used by teachers to allow for those that are experiencing difficulties. The work may be adapted to ensure it is appropriate in order for the child to achieve the objective and gain confidence. However it must be age appropriate. Alternatively for those children who excel in the subject extra challenges may be set to ensure that the work is appropriate and challenging for all. In the Plan Bee scheme differentiated worksheets are provided so these will be used by teachers to ensure the learning objective is accessible for all.

**Assessment**

At Dilton Marsh C of E Primary School assessment is an integral part of the teaching process and is used to inform planning and to facilitate differentiation.

*Monitoring*

Each child has a sketchbook which serves as a cumulative record of their work, including photographs. Informal ongoing assessment is carried out by the class teacher to include marking of work and discussions with the child. Monitoring takes place regularly through sampling children’s work, teacher planning and learning walks.

*Progression*

This is ensured by following the planning provided in our Plan Bee scheme and through the monitoring of sketchbooks by class teachers and the DT lead. Whole school and year group overviews are available which detail the skills being covered by each topic. The progression of skills are clearly illustrated due to the sequential nature of the scheme.

**Resources**

There are a wide range of resources to support the teaching of design and technology across the school. All classes have a range of basic resources stored in classrooms. Further resources are stored in the resource cupboard for teachers to use when needed.