

Policy for Design & Technology

‘Together we unlock potential and learn for life’



Moor First School

This policy was approved by the Governing Body of Moor First School at their meeting on:

SignedChair of Governors

SignedCo-Head Teacher

SignedCo-Head Teacher

Review Frequency:
Every 3 years

Next Review:
Jan 2025

Moor First School

DESIGN AND TECHNOLOGY POLICY

Introduction

This document is a statement of the aims, principles and strategies for teaching and learning of Design and Technology at Moor First School. The school policy for D&T reflects the consensus of the whole teaching staff and is to be discussed with the governing body.

Purpose of Study

Design and Technology is an inspiring, rigorous and practical subject. Pupils use creativity and imagination; they 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 use cross-curricular skills from mathematics, science, literacy, computing and art.

The activities undertaken will enable our children to consider the needs of individuals and society in a cooperative environment. Undertaking design and technology activities in school will give our children opportunities to use a range of materials and processes, and to work independently or as part of a team. The activities undertaken will also reflect the children's local environment and support them in the wider world. High quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

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.

Practical experiences, at the heart of this subject, need to foster positive attitudes towards overcoming problems, working collaboratively and developing a flexibility of approach. The subject serves to reinforce the notion that we do not always work towards pre-ordained solutions.

Learning Objectives

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the attainment targets.

Early Years Foundation Stage

During the Early Years Foundation Stage, the essential building blocks of children's design and technology capability are established. There are many opportunities for carrying out D&T related activities across all areas of learning. By the end of the Reception year, most children should be able to:

- 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.

Key Stage 1

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 wide range of tools and equipment to perform practical tasks
- 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 in their products

Cooking and nutrition

- use the basic principles of a healthy and varied diet to prepare dishes
- understand where food comes from

Key Stage 2

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
- select 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

Technical knowledge

- apply their understanding of how to strengthen, stiffen and reinforce more complex structures
- understand and use mechanical systems in their products
- understand and use electrical systems in their products
- apply their understanding of computing to program, monitor and control their products

Cooking and nutrition

- 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

Strategies for Teaching

Design and Technology is taught in KS1 and KS2 as an integral part of topic work, where appropriate. Focused practical tasks are also planned by the class teacher to develop and practice particular skills and acquire knowledge.

Class teachers use meaningful assignments set within familiar contexts. Where appropriate they are also linked to other subjects.

Teachers should consider the following when planning:

1. Design and technology opportunities arising within the curriculum and how they can link with other subject areas.
2. Progression and continuity should be sustained by regular consolidation of previously taught skills and knowledge. The acquisition of new ones will then be a smoother process.
3. How we present the teaching of new skills to the children, i.e. group based, class taught or at an individual level through focused practical tasks.
4. The role of design and technology in the teaching and learning process throughout the curriculum.
5. How to encourage children to design and produce a unique piece of quality work.
6. How to encourage the safe, economic and appropriate use of materials, tools and equipment.

In addition to this, the Early Years Foundation Stage staff consider Curriculum Guidance for the Foundation Stage when planning for the Foundation Class within:

- Expressive Arts and Design - Creating with materials.

The types of activities that take place should broadly fall into one of the following categories. Over a year, there should be a balanced blend of all three:

Resource Tasks - a highly structured session, working towards a predetermined outcome with a particular focus on acquiring knowledge or skills to secure a specialised capability in D & T.

Capability Tasks - these facilitate an unrestricted design & make experience; pupils have the opportunity to explore their creative potential by applying their existing skills.

Investigation Tasks - pupils evaluate and assess the advantages and disadvantages of a range of other products in terms of their design elements. This could be achieved through observation, handling, testing and disassembly.

Classroom Organisation

Time allocated may vary from week to week and term to term. Teachers may prefer to structure their coverage in blocked or modular termly units of work, rather than in an allocated weekly timetabled 'slot'.

Group sizes should be determined by teachers according to the nature of the activity. A project may be broken down into a series of activities that may require different group sizes at different stages. Whole class teaching could be used to introduce new topics / projects.

Classroom assistance may be sought from non-teaching staff within the school; students/trainees, governors or parents could also be used to facilitate D&T tasks in a supervisory capacity.

Subject specialists with particular expertise may also be invited into school to enhance a theme or objective.

Equal Opportunities/Inclusion

The full range of activities in technology will be made available to all children, irrespective of race, gender, special educational needs or physical disabilities. Please refer to the Equalities Policy. Provision will be made for pupils with SEN to be provided with appropriately challenging tasks to develop their D&T capability.

A range of approaches will be used and incorporated into our D&T activities. This will allow all children to develop their potential, according to age and ability. Where appropriate extension tasks are given to individual pupils. All of our pupils are encouraged to develop as individuals and reflect that individuality and ability in all their D&T projects.

Assessment

Teacher assessment is used to inform future planning and to review children's capability. Design and technology projects are used throughout the key stages to assist with formative and summative assessment. Children are encouraged to make an oral or written assessment and evaluation of their work in technology throughout the key stages. Where appropriate children will use design sheets or booklets to plan, record, assess and evaluate their work.

Recording

Coverage of the children's progress is completed termly for each child. At the end of the year, children are assessed against the Key Assessment Criteria for their particular year group. This will then be reported to parents/carers in the annual report sent home in the summer term.

Resources

The school has a range of centralised resources in the main corridor and each class teacher is responsible for these. The D&T cupboard contains non-consumable resources. Consumable resources are kept in the cupboards in the staffroom. All staff have a responsibility to ensure it is maintained in good order and resources are returned to this storage base or that the D&T Curriculum Leader is made aware that resources need to be replaced.

Role of the Curriculum Leader

The Curriculum Leader works with the whole staff to develop a cohesive design and technology experience throughout the school. The Curriculum Leader will also:

- Support colleagues in their development and understanding of detailed work plans.
- Monitors the implementation of schemes of work including assessment and record keeping.
- Takes responsibility for the purchase and organisation of resources for D&T
- Keeps up to date with developments in D&T
- Monitors delivery throughout the school
- Monitors health and safety arrangements (refer to school policy and associated documentation)
- Undertakes curriculum audit and reviews policy as appropriate.

Health and Safety

A set of safety guidelines for design and technology are kept by the individual teachers within their personal copies of the school "Health and Safety" Policy.

Background documentation

This policy was informed with reference to the Early Years Foundation Stage Curriculum Guidance and the National Curriculum for Key Stages 1 and 2.

This policy will be reviewed and modified as and when necessary and according to new developments if needed.

Date: January 2022

Signed ----- **D & T Curriculum Leader**

Signed ----- **Co-Head Teachers**

Signed: ----- **Chair of Governors**