

## DESIGN AND TECHNOLOGY POLICY

November 2024

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**Review Date:** November 2025



### Rationale

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. Therefore, as well as thinking about their specific requirements, including needs, wants, interests and preferences, children should also bear in mind aesthetic, technical, environmental, cultural and economic considerations.

Children will acquire a broad subject knowledge and draw on disciplines such as mathematics, science, computing and art. They will learn how to take creative risks, operating outside their comfort zone, learning from mistakes and daring to do things differently when making design decisions, thereby becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, children develop a critical understanding of its impact on daily life and the wider world.

### Aims

Development Matters in the EYFS and the national curriculum for design and technology aims to ensure that all 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.
- 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.

### EYFS

In the Early Years, D & T forms part of the learning children acquire under the 'Expressive Arts and Design' and 'Physical Development' branch of the curriculum. The essential building blocks of children's design and technology capability are established. By the end of the Reception Year most children should be able to:

- construct with a purpose in mind, using a variety of resources, explaining the process they have used.
- use a range of small tools and techniques competently and appropriately.
- build and construct with a wide range of objects, selecting appropriate resources and adapting their work when necessary.
- select the tools and techniques they need to shape, assemble and join materials they are using.

**At the end of the Early Years Foundation Stage** the majority of children will

- use scissors safely to cut paper and thin card
- join materials in a variety of ways e.g. tape, glue, paper fasteners, string
- start to be selective of materials and be able to name some
- use basic tools safely and appropriately e.g. hole punch, cutter, scissors
- use construction kits to make models
- talk about their work
- start to think about possible ways to improve their work
- know and follow simple hygiene rules when using the kitchen
- know where some foods come from
- be able to name some healthy foods

## **KS1**

When **designing and making**, children should be taught to:

- work within a range of contexts such as imaginary story-based, home, school, local community and wider environment.
- 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 e.g. 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 (e.g. levers, sliders, wheels and axels) in their products.

### **Cooking and nutrition**

- follow procedures for safety and hygiene.
- use the basic principles of a healthy and varied diet to prepare dishes.
- understand where food comes from.

**At the end of Year 1** the majority of children will

- use an increasing range of materials appropriately e.g. junk materials, construction straws, manufactured components, fabrics, paper
- use an increasing range of tools safely and appropriately e.g. scissors, mallet, peeler and knife
- use tools and materials to design and make simple projects such as a vehicle with wheels and a house for a fairytale animal
- draw on their own experience to help generate ideas
- make suggestions about how to proceed
- use an increasing range of vocabulary appropriately
- think about possible ways to improve their work
- Know where a variety of food comes from and that is grown
- be able to name a variety of healthy and unhealthy foods

**At the end of Year 2** the majority of children will

- clarify ideas through discussion
- develop ideas through shaping, assembling and rearranging materials and components
- consider design ideas as these develop and identify strengths and weaknesses
- apply simple finishing techniques
- think about the strengths and weaknesses of their product
- be able to give examples of healthy breakfasts, lunches and dinners
- be able to give examples of foods which should only be eaten in moderation

## **Planning and Teaching Strategies**

**Plan for:**

- designing and making assignments which provide children with the opportunity to plan and make products which meet real needs
- focused practical tasks to give children the opportunity to learn and practice specific skills and knowledge
- activities in which children investigate, disassemble and evaluate simple products
- opportunities for children to use the kitchen and be taught hygiene rules
- opportunities for children to cook with a variety of healthy foods and follow simple recipes

- activities in which children learn about the principles of a healthy and varied diet
- opportunities for children to apply their new skills, knowledge and understanding
- carefully matched opportunities and experiences to maximise each child's potential.

Use appropriate teaching strategies to ensure that children have opportunities to:

- generate ideas and clarify the task
- develop and communicate those ideas
- plan and evaluate their work
- use a range of materials appropriately
- use a range of tools safely
- taste and make a variety of foods
- understand and use vocabulary appropriately

Work will be integrated into the topic where possible providing curriculum links which allow for transference of knowledge.

**SEND**

- Provision in Design Technology for children with special needs will be delivered through a differentiated curriculum which reflects the ability of pupils.
- OT programmes devised by the Occupational Therapy Service will support the development of basic skills.

**Assessment**

Pupils should be involved in assessing their own work, recognising their strengths and areas for development. Children identified as talented or SEND should be on the Gifted and Talented or SEN register respectively. Design and Technology is in every topic and assessments are made at the end of each unit taught. Children's skills and achievement will be reported at the end of the year in their school report.

**Resources**

- These are stored in the labelled trays in the staffroom.
- A range of basic materials are available in every class offering children easy access.
- Children are also encouraged to bring reclaimed materials from home as required.

This curriculum policy should be read in conjunction with our:

Assessment Policy	EYFS Policy	Inclusion Policy	Learning and Teaching Policy
Equal Opportunities Policy	Health and Safety Policy	SEND Policy	