



# Design Technology Policy

**“Genius is one percent inspiration, ninety-nine percent perspiration.” - Thomas Edison**

## STATEMENT OF INTENT

Monksdown children will be given opportunities to understand through teaching of the National Curriculum in Design Technology, that the built environment is the product of improvement and solutions to problems and opportunities.

The children will acquire and apply knowledge and understanding of:

- materials and components,
- mechanisms and control systems,
- structures,
- existing products,
- quality and value,
- relevant health and safety

They will experience the process of designing a solution to a problem, assessing its success, making refinements and repeating the process within the limitations – itself a learning process in Design technology – of available resources, such that their design tasks are within their plausible experience and using materials that are available.

We recognise that specific basic construction techniques have to be taught first, including cookery, and children need to know that things are sequentially constructed. Children will begin to appreciate interconnectedness and so will wherever possible contextualise Design Technology tasks to link with other-subject study areas and themes. We will seek to inspire children to be creative, imaginative and skilful in handling equipment and required tools.

## IMPLEMENTATION

**The Aims of our D&T Curriculum are:**

Design Technology will be delivered through the Lancashire creative curriculum, adapted for our children by the curriculum lead. The emphasis of our teaching of Design and Technology is on investigation, teaching skills and embedding areas of the curriculum. The children will be taught in a variety of ways including:

- focused practical tasks in which they develop and practice particular skills and knowledge;
- collating information about existing products and using these to develop ideas,
- design and make assignments which include review & improve elements, working as an individual, in groups or as a whole class,
- self & peer assessment of success.

*These aims are intended for all children in school. How they are implemented will be dependent upon the age and ability of the children.*

**D&T in the Foundation Stage**

Before embarking on key stage 1 work, many children will have attended reception and nursery classes where they will have had opportunities to find out and learn about the world they live in.

The F.S. provides a rich environment in which we encourage and value creativity. We relate the creative development of the children to the objectives set out in the Early Learning Goals, which underpin the curriculum planning for children aged three to five. The children's learning includes art, designing & making. Our EYFS staff ensure they provide a range of equipment and materials to inspire curiosity in D&T and allow children to explore, whilst scaffolding their learning using appropriate skills and vocabulary.

**Key Stage 1****Pupils will learn 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.

**Make**

- Discuss their work as it progresses.
- Select and name the tools needed to work the materials.
- Explain which materials they are using and why.
- Describe what they need to do next.

**Evaluate**

- Explore existing products and investigate how they have been made.
- Decide how existing products do/do not achieve their purpose.
- Say what they like and do not like about items they have made and attempt to say why.
- Note changes made during the making process as annotation to plans/drawings.
- Discuss how closely their finished product meets their design criteria and how well it meets the needs of the user.

**Key Stage 2****Pupils learn 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**

- Make prototypes and pattern pieces.
- Use researched information to inform decisions.
- Produce detailed lists of ingredients, components, materials and tools.
- Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.
- Use appropriate finishing techniques for the project.
- Refine their product – review and rework/improve. se 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.

### **Evaluate**

- Investigate and analyse a range of existing products.
- Identify the strengths and weaknesses of their design ideas.
- Report using correct technical vocabulary.
- Discuss how well the finished product meets the design criteria having tested on and discussed outcomes with the user.
- Understand how key people have influenced design in a variety of contexts.
- Investigate key events and individuals in design and technology.

### **Teaching and learning**

Our principal aim is to develop the children’s knowledge, skills and understanding. We ensure that the act of investigating and making something includes exploring and developing ideas, and evaluating and developing work. Children use workbooks to record and evaluate this process and final pieces are created as a separate piece. We do this best through a mixture of whole-class teaching and individual/group activities on projects in two and three dimensions and on different scales using a wide range of materials and resources, including ICT.

We recognise the fact that we have children of differing ability in all our classes, and so we provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this through a range of strategies:

- setting common tasks that are open-ended and can have a variety of responses;
- setting tasks of increasing difficulty where not all children complete all tasks;
- scaffolding or stretching each child’s critical thinking through appropriate questioning;
- using additional adults to support the work of individual children or small groups.

The Design and Technology curriculum ensures equal access to all pupils regardless of their ability, aptitude, race, religion or gender. A wide range of gender specific and cultural images and contexts will be used and we will use these opportunities to challenge stereotypes.

**Planning**

We carry out long term, medium term and short-term planning within each year group.

Medium/short term plans are recorded on our school matrix, and define what we will teach and ensure an appropriate balance and distribution of work across each term. The D&T subject leader is responsible for reviewing plans and children's work as a basis for subject coordinators annual report. Class teachers annotate the matrix recording key learning objectives and lesson content.

We plan the activities in D&T so that they build upon the prior learning of the children. While we give children of all abilities opportunity to develop their skills, knowledge and understanding, we also build planned progression into the scheme of work, so that there is an increasing challenge for the children as they move up through the school.

**Assessment and Record Keeping**

Class teachers will complete a Planning Sheet that will act as a termly record of work covered.

Simple assessments are recorded at the end of each unit identifying those children who are working below, at or above age related expectations and informs the annual subject report to the Governing Body. We pass this information on to the next teacher at the end of each year.

Each child should build up a portfolio of work which shows achievement and progress, one piece of work per term, dated with child's own and/or teacher's comments. Large pieces of work ought to be photographed. The children's own comments could be in the form of a self-evaluation sheet.

**Monitoring and review**

The monitoring of the standards of children's work and of the quality of teaching in D&T is the responsibility of the subject leader. The work of the subject leader also involves supporting colleagues, being informed about current developments in the subject, and providing a strategic lead and direction for the subject in the school. The D&T subject leader produces an annual summary report evaluating the strengths and areas for further improvement.

**Reporting to parents**

This is done twice per year at parent evenings and annually on their written report

**Resource Management**

Resources such as saws, craft knives, needles and glue guns are stored in a locked cupboard to ensure safety. Food is bought when needed and food equipment is stored in a separate cupboard.

**Health and Safety**

All members of staff will ensure the safety of children when using the equipment at all times. Children will be taught how to use equipment safely and how to take steps to control risks. Glue Guns will only be used by teachers if there is no other joining technique that the children can use. At the beginning of each session/block, a risk assessment will be carried out with the children highlighting any possible dangers and what measures they can take to minimise the risks.

**Accessibility and Teaching Art to pupils with Special Educational Needs**

We teach D&T to all pupils, whatever their ability, in accordance with the information set out in our school curriculum overviews, providing a broad and balanced curriculum to all. Teachers provide learning opportunities matched to the needs of children of all capabilities, setting and reviewing appropriate targets.

**INTENDED IMPACT**

Design and technology is an inspiring, rigorous and practical subject. Pupils acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art.

Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Children develop a critical understanding of Design and Technology's impact on daily life and the wider world.

**Policy Review**

This policy was last reviewed: Spring 2023

Date of next review: Spring 2025