

INGLEBY MILL PRIMARY SCHOOL



Design and Technology Policy

January 2023

Mrs C. Lewis
Due to be reviewed: January 2026



Imagine
Make a Difference
Persevere
Succeed

At Ingleby Mill we aim to ensure that our whole community provides children with the opportunity for growth and development through the acquisition of skills, attitudes and knowledge in a safe, encouraging and sometimes challenging environment.

Design and Technology at Ingleby Mill Primary School

What do we want our children to learn?

We intend to help prepare our children for a bright future in Design and Technology and to understand and appreciate designs and innovations around them already. It is important that children can understand they can meet design needs to help make our lives easier now and in the future. We need the children to see where design and inventions have contributed to helping us in our everyday life already. We will need to help our children to learn a range of concepts and skills which will ensure they develop their creative and problem-solving capabilities.

How will we do this?

We will introduce and follow a broad and balanced curriculum which will ensure the children are challenged and supported in considering and meeting design criteria and learning the skills needed to best meet and solve the problems. We will raise the profile of Design and Technology in school so that it offers many opportunities for children to respond and learn well from. We will offer a varied curriculum which builds on processes and nutrition and food technology.

What impact will it have?

We want our children to enjoy this area of the curriculum and see it as a valuable learning opportunity now and for the future. It will open their eyes to new career opportunities and a desire to solve a problem by themselves whereby developing their thinking skills and independence.

Entitlement

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 foundation stage provides a rich environment in which we encourage and value creativity and developing thinking skills. We relate the 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. This includes learning they acquire under the

heading 'Knowledge and understanding of the world'. The range of experiences will be through first hand experiences children and will be encouraged to explore, observe, solve problems, think critically, make decisions and talk about their decisions.

Key Stages 1 & 2 – National Curriculum

Key Stage 1

Pupils are taught through a range of creative and practical activities 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 -

1. Design purposeful, functional, appealing products for themselves and other users based on design criteria
2. Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and where appropriate, information and communication technology.

Make –

1. Select from and use a range of tools and equipment to perform practical tasks, (for example, cutting, shaping, joining and finishing)
2. Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

Evaluate –

1. Explore and evaluate a range of existing products
2. Evaluate their ideas and products against design criteria

Technical knowledge –

1. Build structures, exploring how they can be made stronger, stiffer and more stable
2. Explore and use mechanisms (for example, levers, sliders, wheels and axles) in their products

Key Stage 2

Pupils are taught through a variety of creative and practical activities 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, the school, leisure, culture, enterprise, industry and the wider environment)

When designing and making pupils should be taught to:

Design -

1. 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
2. Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross sectional and exploded diagrams, prototypes, pattern pieces and computer aided – design

Make –

1. Select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing) accurately
2. 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 –

1. investigate and analyse a range of existing products
2. Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
3. Understand how key events and individuals in design and technology have helped shape the world

Technical knowledge –

1. Apply their understanding of how to strengthen, stiffen and reinforce more complex structures
2. Understand and use mechanical systems in their products
3. Understand and use electrical systems
4. Apply their understanding of computing to program, monitor and control their products

Cooking and nutrition –

To be taught how to cook and apply the principles of nutrition and healthy eating. Instil a love of cooking and open a door to the expression of human creativity. To develop a crucial life skill and to be able to feed themselves and others affordably and well now and in later life.

Key Stage 1

- Use basic principles of healthy and varied diet to prepare dishes
- Understand where food comes from

Key Stage 2

- understand and apply 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

Teaching and Learning Styles

Design technology may take place in the classroom, shared areas, computer suite or kitchen areas as appropriate. Making choices and developing preferences is important in all year groups. A range of teaching styles and learning strategies will be adopted ensuring that all the children receive a balanced diet of skill teaching, practise and refinement and also opportunity for them to explore their creativity and imagination.

- Individual, group and whole class teaching
- Discussion and demonstration
- Consolidation and practice
- Exploratory and experimental approach
- Investigation and research
- Evaluation (of existing products or their own work)

For some of the modules in our design technology curriculum map, teachers follow the 'Kapow' scheme for DT.

Equal Opportunities

Design technology provision will be accessible to all children, regardless of race, gender, class, religion and ability. Planning, resources and any displays will reflect positive images of all communities represented in our school and society. Existing products to be analysed in terms of design needs or effectiveness will also reflect this attitude.

Evaluation

Individual teachers will, and should, evaluate the success of their teaching after a session or blocked time on a project and this should be used to help and support colleagues in the year group and also to offer feedback to the DT Leader.

The DT co-ordinator is always willing to offer support in preparing for or implementing the planning, practising or modelling of techniques or use of tools and looking ahead to future sessions.

The design technology co-ordinator is also keen to ensure there is a progression of skills-based teaching across the two key stages involving both processes and food technology.

The Role of the Co-ordinator

The co-ordinator will ensure that within budgetary constraints, design and technology resources are readily available within teams, well organised and accessible to all staff. Colleagues will be offered support in order for the curriculum to be successfully implemented.

Colleagues will also be made aware of all resources, including any relevant professional development to develop their expertise or artefacts within school which may be useful.

A new scheme is to be trialled for a few of the planned projects in order to help develop necessary skills, ensure some progression and support staff and teachers will be asked for feedback about the effectiveness of this in the short term

The co-ordinator will have an overview of continuity/progression in DT throughout the school and ideally will have opportunities to see lessons first hand.

The co-ordinator will monitor and review the implementation of the new planning and consider any changes to be made in light of staff and pupil feedback.

SEND

All children have the same opportunities as their peers. Where a special need is of a physical nature we will ensure that the activity is adequately resourced and supported should the nature mean adaptations for equipment or materials used.

DT is often an opportunity for children with learning or social, emotional or behavioural difficulties to excel and advantage should be taken to promote positive self-images.

Assessment

Teacher assessment should always be made upon specific criteria which have been developed as the work is planned, and will be often skills or knowledge based. The focus will be on the process as much as the end product.

From Reception to Year 6 children will use design booklets or a sketch book to provide an important record of progress in investigation, research or design ideas. These will also offer a space to reflect on and evaluate their projects.

Work will be marked/commented upon but this may often be verbally done during the actual making process as steps evaluated.

Children will be encouraged to make self-assessments and evaluations shown by their annotations or further responses to the work they produced.

Assessment in DT is recorded on Target Tracker using the statements provided, which have been carefully worked into planning and reflect the progression across the key stages.

Website – Curriculum Overview

This is available on the school website and helps to show the progression planned across the whole school in terms of processes and nutrition and food technology.

Review of this policy

The review of this policy will take place in the spring term 2026 or earlier if the need is identified. (Caroline Lewis Co-ordinator 2023)