



Design Technology Policy

Policy date: Sept 25

Statement of Intent

At Ingol Community Primary School Primary School all children follow a broad and balanced curriculum that includes the ten National Curriculum subjects, SMSC and Religious Education, Design Technology, History, Geography, Art, Music, Physical Education, French and Personal Social and Health Education.

Our aims are to:

- Enable pupils to develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world.
- Enable pupils to 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.
- Enable pupils to critique, evaluate and test their ideas and products and the work of others
- Ensure that all pupils understand and apply the principles of nutrition and learn how to cook.
- Teach pupils to take risks so that they become resourceful, innovative, enterprising and capable citizens

Objectives

Pupils should have opportunities to:

- Develop realistic outcomes to assignments
- Take increasing responsibility for their own work
- Critically evaluate their work and the work of others and suggest improvements
- Work individually and in teams, groups, partners and pairs
- Work with a range of materials and to use them appropriately
- Use a variety of tools safely and correctly
- Communicate ideas in a variety of ways
- Develop skills and apply knowledge and experience when working on an assignment
- Develop the ability to solve problems
- Research and record relevant information where appropriate
- Examine and evaluate design features in simple products including their historical development

Design and Technology involves applying knowledge and skills when designing and making products. 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 a part of a team. We would also hope that the activities

undertaken here at Ingol Community Primary School will also reflect the children's local environment and support them in the wider world.

Planning and Organisation

Design and Technology is taught in Key Stage 1 and 2 as an integral part of topic work, where appropriate. Focused practical tasks are also planned by the class teacher to develop and practise particular skills and acquire knowledge. Meaningful assignments, to give children a purpose for their designs, set within familiar contexts are used by class teachers and in whole school projects. Where appropriate they are also linked to other subjects, for example, history, geography and science.

As teachers we consider:

- Design and Technology opportunities arising within the curriculum and how they can link with other subject areas and bodies of knowledge
- How we present the teaching of new skills to the children i.e. group based, class taught or at an individual level
- The role of Design and Technology in the teaching and learning process throughout the curriculum
- How to encourage children to produce work of quality
- How to encourage the safe, economic, and appropriate use of materials, tools, and equipment

It is important that the tasks presented to pupils help them to make progress in Design and Technology. The sequence of tasks and assignments should be planned so that there is progression in what is taught, as identified in the Design and Technology programme of study. The school follows a skills-based curriculum all teachers are aware of the progression in skills for their year group.

Children in reception will be learning to

- Use a range of small tools, including scissors, paintbrushes and cutlery.
- Show resilience and perseverance in the face of challenge.
- 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

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 mechanisms [for example, levers, sliders, wheels and axles] in their products

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

Whole School Policy

The Design and Technology curriculum has been developed to ensure it is an integral part of the “whole school” approach to children’s learning.

Equal Opportunities

The full range of activities in technology will be made available to all children, irrespective of race, gender or physical disabilities.

Assessment

Teachers use formative assessment to inform future planning within a topic. Opportunities are given to children to review their work throughout the key stages. Where appropriate children will use design sheets or booklets to plan, record, assess and evaluate their work. Whole class work is recorded in DT floor books, these books highlight pupil's progression and curriculum coverage.

Resources

The school has a wide range of resources kept in a central area. A mobile technology trolley is available, and all staff have a responsibility to ensure it is maintained in good order.

Differentiation

A range of approaches will be used and incorporated into our Design and Technology activities. This will allow all children to develop their potential according to age and ability.

The role of the subject leader:

The school's appointed subject leader will:

- seek to enthuse pupils and staff about design technology and promote high achievement, through training of staff and an annual whole school design technology week.
- manage and develop all resources for design technology and train staff in their use.
- keep up to date with current developments, attend relevant courses and meetings, disseminating information to the rest of the staff.
- monitor the quality of teaching and the standard of work produced by carrying out book monitoring, lesson observations and planning check

Planning

It is our aim that children work through activities that are based on our programme of themes and or focused activities as described in our long term plan. This plan will ensure all aspects of the Design and Technology programmes of study are covered during KS1 and KS2.

Health and Safety

All equipment is risk assessed and those risk assessments kept centrally on the shared computer network. Risk assessments have been shared with staff during staff meetings.

Inclusion

We aim to provide for all children so that they achieve as highly as they can in English according to their individual abilities. We will identify which pupils or groups of pupils are under-achieving and take steps to improve their attainment. Gifted children will be identified and suitable learning challenges provided.

Equal Opportunities

All children are provided with equal access to the English curriculum. We aim to provide suitable learning opportunities regardless of gender, ethnicity or home background. Pupils who arrive in school with very limited use of English work in small groups with Ta support. The 'Racing to English' scheme is used to develop pupil's vocabulary.

Pupils Premium

All staff know which pupils meet this criteria in their own class. Support staff are utilised to ensure that these pupils have the support they need to make good progress – this may be in a group of pupils with SEN, in a group of low achievers or in a group of very able pupils.

In accordance with Ingol Community Primary School's Race Equality Policy we seek to ensure all pupils achieve their best, according to their capabilities and regardless of their disability, gender, race, culture, social, economic, ethnic, religious background and denominational diversity.

Mrs S Smalley Design Technology Subject Leader

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Next review Summer Term 2025