



Tuition, Medical and Behaviour Support Service

Curriculum Policy - Primary Design and Technology

Harlescott Education Centre

Monkmoor Education Centre

Reviewed:	October 2021
Next Review:	October 2022
Responsibility:	Andrea Snow

AIMS AND PRINCIPLES

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils 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 draw on disciplines such as mathematics, science, engineering, computing and art.

Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens

Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

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

PLANNING

Subject content

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

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.

Cooking and nutrition

As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.

Pupils should be taught to:

Key Stage 1

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

Key Stage 2

- 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

PLANNING

Pupils at the Harlescott Education Centre and Monkmoor Education Centre are there for varying lengths of time, depending on their individual needs. Their prior knowledge and experience of art will also differ, depending on their involvement in mainstream school. Pupils are taught in their classes, which include a range of age and ability. The Harlescott Education Centre and Monkmoor Education Centre runs a morning and afternoon session of two different groups of children.

Taking the above into consideration at TMBSS primary we strive to embed Design and Technology across the curriculum and teach it alongside subjects such as geography, history and literacy.

Half-termly schemes of work are developed ensuring progression and built-in differentiation designed to meet the needs of mixed ability and mixed year group classes. The plans are then used for cross curricular links to art.

It is on this basis which we have planned our 'Long Term Plan' over a 'Two Year Cycle'.

Cycle A	Electrical - Sirens Food and Nutrition - Soup	Food and Nutrition - Sandwiches	Strengthening - Packaging Food and Nutrition - Smoothies
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Cycle B	Mechanical - Moving toys Food and Nutrition - Flapjacks	Food and Nutrition - Bread	Strengthening - Packaging Food and Nutrition - Pizza
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Immersion Days

Given the time constraints within the centre it is not always possible to teach every activity within a subject. The planning reflects a coverage of the important objectives within each subject. Immersion days can enable a more thorough examination of the themes than can be taught within a day where English, maths, science, PSHE and computing etc are statutory. Pupil immersion days provide a variety of creative and stimulating activities.

Pupil immersion days are effective in providing a variety of creative, stimulating and engaging activities for pupils.

ASSESSMENT and RECORDING

This is achieved through:

- discussion with pupils;
- observation of pupils;
- marking work.

MONITORING AND EVALUATION

This is achieved by the Design and Technology coordinator through;

- monitoring and evaluation of pupils' work;
- monitoring of planning as in other policies.

MARKING WORK

The purpose of marking is to move children forward in their learning.

1. Feedback and marking should be part of a process in which children need to have some involvement.
2. Written or verbal comments made by the teacher could link back to the learning objective and/or success criteria.
Written or verbal comments made by the teacher could give advice/suggestions/clues on how to 'close the gap'.
Written or verbal comments made by the teacher could set out the 'next steps' for learning.

For further guidance and detail on marking, please refer to TMBSS Marking and Feedback Policy.