



Design and Technology Policy

Intent

At St Mark's Primary school, we believe that high-quality Design and Technology lessons will engage and inspire children to think innovatively and develop creative procedural understanding. Our aims are to: fulfil the requirements of the National Curriculum for Design and Technology, provide a broad and balanced curriculum, ensure the progressive development of knowledge and skills, to learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens through evaluation of past and present design and technology, develop a critical understanding of its impact on daily life and the wider world, to participate successfully in an increasingly technological world using the language of design and technology.

Implementation

Design and Technology is taught through a topic approach alongside Art, History and Geography. Our Creative Curriculum is carefully planned to engage and excite all our learners. The activities in design and technology build upon the prior learning of the children. Children in their designing and making will apply knowledge and skills of: textiles, food, mechanisms and structures. Electrical control is included at key stage 2.

Whilst we give children of all abilities the opportunity to develop their skills, knowledge and understanding, we have in place a skills continuum which ensures continuity and progression so that there is an increasing challenge for the children as they move up through the school. As well as making its own distinctive contribution to the school curriculum, Design and Technology contributes to the wider aims of primary education by making links between all areas of learning.

Impact

Through the teaching of Design and Technology we enable all children to:

- Develop creative, technical and imaginative thinking in children and to develop confidence to participate successfully in an increasingly technological world.
- Enable children to talk about how things work and to develop their technical knowledge.
- Apply a growing body of knowledge, understanding and skills in order to design and make prototypes and products for a wide range of users.
- Encourage children to select appropriate tools and techniques when making a product, whilst following safe procedures.
- Develop an understanding of technological processes and products, their manufacture and their contribution to our society.
- Foster enjoyment, satisfaction and purpose in designing and making things,

- Critique, evaluate and test their ideas and products, and the work of others.
- Understand and apply the principles of nutrition and to learn how to cook.
- Understand how key events and individuals in design and technology have helped shape the world.

Teaching and Learning Early Years Foundation Stage

Children in the Early Years Foundation Stage will undertake investigative and skills based tasks during independent, child-led activity time. The 'Creative/Workshop/Art' areas will be available to them on a daily basis and they will be encouraged to undertake focused practical tasks through directed and self-initiated stimuli. They will be provided with resources based on topics within the focus of the classroom and will be encouraged to design and develop ideas independently. Children in EYFS will work on a range of creative themes and tasks, and their work in Expressive Arts and Design links closely to other areas of the EYFS profile, namely 'Moving and Handling' through the opportunity to develop skills in using various tools, and 'Shape, Space and Measure' through access and exploration of a range of construction materials.

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.

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:

EYFS

- Know the importance for good health of physical exercise and a healthy diet

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.

Assessment

Teachers will assess the children's work in art and design technology while observing them working during lessons. They will record the progress made by children against the learning objectives for their lessons. Teachers assess what each child has achieved and then use this information to plan future work. This method of recording also enables the teacher to make an annual assessment of progress for each child, as part of the child's annual report to parents. We pass this information on to the next teacher at the end of each year. Children are encouraged to assess and evaluate both their own work and that of other pupils. This helps them to appreciate how they can improve their performance, and what their targets should be for the future.

Inclusion

Equal opportunities and inclusion of all children As a Right's Respecting School, we believe that it is important for all children to experience the range of design and technology activities. We will use opportunities within design and technology to challenge stereotypes. All children will be encouraged and supported to develop design and technological capability through a range of materials. We recognise the importance of identifying the specific difficulties that individual children might experience, and targets will be set within their IEP to reflect appropriate teaching and organisational strategies to meet their needs. At St Mark's Primary school we expect all children to participate in Design and Technology projects. Specialist equipment and support will be sought and provided for any children who need them in order that they will be included within and have access to tasks in Design and Technology. The subject co-ordinator will liaise closely with the SENCO (Special Needs Coordinator) and MATCO (More Able and Talented Co-ordinator) to ensure that all our children have differentiated access to Design and Technology, including provision of special resources or equipment where necessary and possible.

The Role of the Design and Technology Co-ordinator is to:

- Lead the development of design and technology in school.
- Provide guidance to individual members of staff.
- Keep up to date with local and national developments in design and technology and disseminate relevant information.
- review and monitor the success and progress of the planned units of work
- Order stock linked to the planned units of work at the end of each term.
- Be responsible for the organisation and maintenance of design and technology resources.
- Co-ordinate any display of design and technology work.

This policy outlines the teaching and learning of design and technology. It reflects the views of all staff and was drawn up as a result of staff discussion. This policy will be reviewed annually by the co-ordinator. The implementation of the policy is the responsibility of all staff and will be monitored by the head teacher.

Reviewed September 2024