



Smile – Learn – Excel

Design & Technology Policy

Design is concerned with how things work, how they are controlled, and the nature of the interaction between people and technology. When done well, the results are brilliant, pleasurable products.

Don Norman

Policy Reviewed: June 2021

Next Review: June 2022



Introduction

At Shortlanesend, Design and Technology is taught through our immersive curriculum to prepare pupils to participate in a constantly evolving technological world by becoming discriminating, informed users and innovators of products.

Our children are provided with opportunities to think creatively to improve the quality of life by looking for and responding to human needs, wants and interests. They combine their understanding of relevant and past design and technology with practical skills to design, make and evaluate their own products. These opportunities are linked to their termly topic to ensure their curiosity is supported by their understanding of the challenge.

Aims

Design and Technology offers children the opportunity to:

- Develop their capability to create high quality products through combining their designing and making skills with their knowledge and understanding
- Nurture creativity and innovation
- Explore values and attitudes towards the made-world and how we live and work within it
- Develop an understanding of products and processes and their contribution to our society
- Research and explore past design and technology and use this knowledge in their own designing
- To develop an understanding of health and nutrition and how to cook. Develop an attitude that is conscious of what a healthy lifestyle is and how food contributes towards this.

Early Years Foundation Stage

Design and Technology falls within the 'Expressive Arts and Design' strand of the EYFS. Children are given the opportunity to:

- Manipulate materials to achieve a planned effect.
- Construct with a purpose in mind, using a variety of resources.
- Use simple tools and techniques competently and appropriately.
- Select appropriate resources and adapt work where necessary.



- Select tools and techniques needed to shape, assemble and join materials they are using.

At Shortlanesend we encourage the development of creativity, skills; knowledge and understanding that help children make sense of their world as an integral part of the school's work. We relate the development of the children's arts and design to the objectives set out in the Early Learning Goals. These early experiences include asking questions about how things work, investigating, using and being creative with a variety of construction kits, materials, tools and products, developing making skills and handling appropriate tools and construction material safely and with increasing control. We provide a range of experiences linked wherever possible to the termly topic with the aim to attract and maintain the children's interest and curiosity.

National Curriculum - Key Stage 1

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, explaining how they can be made stronger, stiffer and more stable
- explore and use mechanisms [for example, levers, sliders, wheels and axels], in their products



National Curriculum - Key Stage 2

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 programme, monitor and control products

Cooking & Nutrition

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

Children's progress in Design and Technology is monitored throughout the year. Finished products should be photographed individually and stuck into books. Teachers assess children's practical work in DT by making assessments as they observe them working during lessons. A whole school monitoring and recording system is in place for teachers to use to assess children's progress in Design and Technology each year. Annual scrutinies will be carried out by the DT co-ordinator and SLT to ensure children receive a deep and wide experience of learning experiences.

Responsibilities of the Subject Leader

- Overseeing and implementing the policy.
- Writing an annual action plan for The School Improvement Plan and evaluating progress throughout the year.
- Ensuring that teacher's planning allows for full coverage of EYFS/NC objectives and shows progression across school.
- Attending CPD to keep knowledge up to date and feeding back to staff.
- Conducting book scrutinies.
- Conducting pupil discussions.
- Conducting learning walks.
- Providing feedback to staff on all monitoring activities in order that teaching and learning may be improved.
- Providing support and guidance to colleagues whenever required.
- Ordering resources and maintaining resources.



Resources

All Design and technology resources are kept in labelled storage boxes in the resource room located in the hall. Each class is also given their budget allowance to order appropriate resources for their immersive curriculum topics.

Health and Safety

The safety of the children is the responsibility of the class teacher. All staff must complete a risk assessment on materials being used/lessons being taught.

Food Technology

- Children will be instructed on how to use sharp knives safely and will be supervised while using them.
- Children will be instructed on how to use a hob/oven and will be supervised when using.
- Food hygiene will be covered in each year group as a key learning objective for each Food Technology project.
- Teachers must familiarise themselves with any food allergies or dietary requirements within their cohort and plan accordingly.

DT Tools

- Children will be shown how to use a variety of tools safely and staff will oversee use of tools, with levels of supervision appropriate to age of children.
- Staff will ensure pupils have a tidy environment and enough space to work safely within, and set high expectations of responsible behaviour in lessons.

Inclusion

At Shortlanesend School we are committed to providing a teaching and learning environment that allows all children to thrive and reach their potential.

All teachers provide suitable learning opportunities for children, recognising that many children have individual needs and ensuring these needs are catered for in Design and Technology lessons. This includes providing adult support and appropriate equipment and materials to enable all children to access the Design and Technology curriculum.



Shortlanesend School

Smile – Learn - Excel

Teachers are aware of children who have a particular talent for Design and technology and aim to provide additional challenges for these children where appropriate.