# DOVER PARK
# PRIMARY SCHOOL

# Design Technology Policy

Date agreed: September 2021

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Signed: _____

Chair Board of Governors

**DOVER PARK PRIMARY SCHOOL**

**Design and Technology Policy**

**Purpose of study – Design and Technology**

Design and technology prepares children to take part in the development of tomorrow's rapidly changing world. Creative thinking encourages children to make positive changes to their quality of life. The subject encourages children to become autonomous and creative problem-solvers, both as individuals and as part of a team. It enables them to identify needs and opportunities and to respond by developing ideas, and eventually making products and systems. Through the study of design and technology, they combine practical skills with an understanding of aesthetic, social and environmental issues, as well as of functions and industrial practices. This allows them to reflect on and evaluate present and past design and technology, its uses and its impacts. Design and technology helps all children to become discriminating and informed consumers and potential innovators.

## MISSION STATEMENT

As a school we value and are dedicated to the teaching of Design Technology. We see this as a fundamental part of school life. We are committed to providing an 'Arts and Design Rich and creative Curriculum' for our children. We believe that by developing this we can contribute to the quality of our children's lives both within and beyond school. We see Design Technology as a means to supporting learning in a range of ways. The skills that are developed in these subjects can be transferred across the curriculum and thus aid learning.

Through the teaching of Design Technology, we focus on:

- Observing detail
- Problem solving and reasoning
- Sensitive, analytical and critical responses
- Increasing confidence
- Striving for high standards
- Raising self-esteem
- Imagination and creative expression
- Investigative techniques
- The opportunity to compare, contrast and appreciate different cultures
- Evaluation skills

## AIMS

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 AND ALLOCATION OF TIME

As an integral part of school life, design and technology subjects are embedded in the school's ethos and planning mechanisms. These may be taught as discrete subjects or may form part of a wider topic approach. Design technology time is managed effectively and creatively allowing pupils sustained time for some work. This includes cross curricular projects which can be blocked or allocated time on a weekly basis. Each year group has three Design Technology projects throughout the year which are thematically linked. These are mapped out on the subject long term plan and focus on different skills.

## PROGRAMMES OF STUDY

Through the teaching of Design Technology, the following skills are taught:

### 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 interactive 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 interactive 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.

https://www.gov.uk/government/publications/national-curriculum-in-england-design-and-technology-programmes-of-study

**CURRICULUM ORGANISATION**

Class teachers are responsible for the teaching of Design and Technology, although there will be times when professional designers/helpers will be involved in the teaching of the topic. Reports on the teaching and learning of Design Technology will be made to the Head on an annual basis. We take every opportunity to develop links with outside agencies and experts, including the local High School in order to enrich our Design Technology provision.

**EQUAL OPPORTUNIIES/SPECIAL EDUCATIONAL NEEDS/DIFFERENTIATION**

Children with SEND have equal access to resources and materials. Activities are differentiated to ensure the needs of pupils are best met. Work produced by all pupils is valued and celebrated through display, assemblies and class activities. Children who show particular aptitude are identified, encouraged and given opportunity to flourish. All children are encouraged to perform and performances are valued and high standards are expected.

**ASSESSMENT AND RECORDING**

Class teachers are responsible for assessing the development of individual pupil's skills and skills lists are employed for this purpose. Each class teacher is required to provide examples of the Design Technology work taught throughout the year in order to build a class portfolio.

**THE ROLE OF THE DESIGN TECHNOLOGY SUBJECT LEADER.**

- Support class teachers with the provision for teaching design and technology
- Monitor progress of the subject across the school
- Ensure that Skills Lists are being regularly updated and referred to
- Monitor and keep stock of the school's resources for Design Technology; this means ordering and organising the DT packs.
- Ensure that DT displays are updated on a regular basis
- Build links with other schools
- Build a portfolio of outstanding DT work in order to meet the requirements of Ofsted subject inspections.
- Informal drop-in lessons when teaching DT to recognise good practice

**EXTRA CURRICULAR ACTIVITIES**

All children are encouraged to participate in extra-curricular learning. The school will ensure that there are different clubs available to develop their enjoyment of design and technology and improve their skills and levels of achievement.

**HEALTH AND SAFETY – FOOD TECHNOLOGY**

**When working with food:**

*An adult who holds a food hygiene certificate will be required to supervise activities involving cooking, food handling and preparation.

*When undertaking food activities the appropriate Health and Safety Procedures must be adhered to be all.

*When working with food all children should follow personal hygiene guidance (tie back hair, clean apron, use of blue plasters and washing hands)

*Teachers should check the dietary needs of the children in their class to identify any foods that should not be available to specific children, or groups of children.

*Any perishable food should be stored in a fridge.

*Only the equipment which is for food use only, should be used.

*Glass and wooden items should never be used.

*Ensure that the plastic work sheets, especially for use with food, cover the desk area. This sheet should be wiped down with a steriliser.

*Only use equipment set aside to use with food.

*Set aside an area for children to wash their hands.

*Teachers taking part in any food activity should dress appropriately and follow the same procedures as the children with regard to any rules regarding personal hygiene.

*Ensure that all equipment is cleaned and put away.

*Ensure that all children use their own equipment when tasting food.

*Certain spoons should be identified and used when placing food onto plates for children to taste food, teachers/TA's need to ensure children do not use their own.

## HEALTH AND SAFETY – DESIGN TECHNOLOGY

**Adults should ensure that:**

- DT equipment is not left out and unsupervised. Floors and work surfaces are kept clean and tidy and all tools used must be of good quality, in good condition and stored safely.

- Direct safety instructions should be given to children each time they undertake a design and technology activity.

- Children should be given suitable instruction on the operation of all equipment before being allowed to work with it.

- Children should be strictly supervised in their use of equipment at all times. Adult to child ratio must be appropriate to the activity e.g. closer supervision on activities such as use of a glue gun.

- Children should be taught to recognise and consider hazards and risks and to take action to control these risks, having followed simple instructions.