



## Design and Technology Policy 2022

Kirk Smeaton CE Primary School understands that D&T allows pupils to solve problems, think creatively and develop ideas. These subjects offer pupils a chance to use creative thinking and activity within a defined purpose and tangible outcome. Our school is committed to nurturing pupils' curiosity and creativity, as well as preparing them for living in a modern world where technology is rapidly changing and advancing.

### Intent

By teaching D&T, we aim to help pupils:

- Develop their design and making skills.
- Develop their knowledge and understanding of design and technologies.
- Use a wide range of tools and materials.
- Learn about working safely and using protective measures.
- Work individually and collaborate with other pupils in a variety of contexts.
- Develop the capability to create products of a high standard through skills and understanding.
- Evaluate products, made by themselves, their peer groups and external companies.
- Explore the man-made world and encourage discussion of how we live and work within it.
- Develop an interest in and an understanding of technological processes and the role of manufacturing in society.
- Become creative thinkers and learners, exploring their ideas and recording their experiences.
- Learn the principles of nutrition, healthy eating and how to cook.

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### Early years foundation stage (EYFS)

All pupils in the EYFS are taught D&T as an integral part of the topic work covered during the academic year.

All D&T objectives within the EYFS are underpinned by the three prime areas outlined in the 'Statutory framework for the Early Years Foundation Stage':

- Communication and language
- Physical development
- Personal, social and emotional development

There are five specific areas through which the three prime areas are strengthened and applied:

- Literacy
- Mathematics
- Understanding the world
- Expressive Arts and Design

- Physical Development (fine motor skills)

The D&T curriculum in the EYFS has a particular focus on the specific area of understanding the world. In the EYFS, pupils will be taught to:

- Recognise that a range of technology is used in places such as at home and in schools.
- Select and use technology for particular purposes.
- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, form and function.
- Represent their own ideas, thoughts and feelings through D&T.

## **KS1**

**By the end of KS1, pupils will be taught to:**

- To design purposeful, functional and appealing products for themselves and other users based on design criteria.
- To generate, develop, model and communicate their ideas through talking, drawing, templates and mock-ups and, where appropriate, information and communication technology.
- To select from and use a range of tools and equipment to perform practical tasks, e.g. cutting, shaping, joining and finishing.
- To select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.
- To build structures, exploring how they can be made stronger, stiffer and more stable.

## **KS2**

**By the end of KS2, pupils will be taught to:**

- To use, research and develop design criteria to inform the design of innovative, functional and appealing products that are fit for purpose, aimed at particular individuals or groups.
- To generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.
- To select from and use a wider range of tools and equipment to perform practical tasks accurately, e.g. cutting, shaping, joining and finishing.

- To 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.
- To investigate and analyse a range of existing products.
- To evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.
- To understand how key events and individuals in D&T have helped shape the world.
- To understand and use electrical systems in their products, e.g. series circuits incorporating switches, bulbs, buzzers and motors.

### **Cooking and nutrition**

As part of their work with food, pupils should be taught how to cook/bake and apply the principles of nutrition and healthy eating. Instilling a love of cooking and baking in pupils will also open a door to one of the greatest expressions of human creativity. Learning how to cook/bake is a crucial life skill that enables pupils to feed themselves and others, as well as promoting a balanced diet and healthy lifestyle.

By the end of KS1, pupils will be taught to:

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

By the end of KS2, pupils will be taught to:

- Understand and apply the principles of a healthy and varied diet.
- Prepare and cook a variety of dishes using a range of cooking techniques.
- Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

### **Cross-curricular links:**

English:

- D&T offers the opportunity to reinforce what pupils have been learning during English lessons. Discussion, drama and role-play are important methods that the school employs to help pupils develop an understanding of people's different views and opinions of D&T and society.
- Evaluating products requires pupils to articulate and formulate their ideas to compare their views with other pupils' views; through discussion, pupils will learn to justify their own views and clarify their design ideas.

Maths:

- D&T provides opportunities to assist pupils in learning about shape and size and will make use of what they have already learned in maths lessons.

PSHE:

- D&T lessons will be used to teach pupils how to discuss their own work and the work of others.
- Pupils will be taught about health and hygiene, including diets, and how to prevent disease from spreading when working with food.
- Teaching D&T offers opportunities to support the social development of pupils through the way they are expected to work with each other in lessons.
- D&T helps pupils develop a respect for other pupils' abilities. Working in groups encourages collaboration and gives pupils the opportunity to learn from each other and share ideas and feelings.

### **Health, safety and hygiene**

- In order to maximise their learning experience, pupils are allowed full access to a wide range of materials in D&T lessons; however, health and safety concerns are inherent with these subjects, including storing materials and tools, and the use of equipment.
- Personal protective equipment (PPE), such as gloves, head protection, eye protection and hearing protection, where necessary, is made available to all pupils and teachers.
- The risks of each task will be assessed by the classroom teacher before lessons, and relevant PPE will be compulsory based on their decisions.
- Pupils will be supervised at all times during D&T lessons.
- All tools, such as glue guns, are checked by the teacher before use. It is also the duty of staff to recognise and assess the hazards and risks associated when working with food and other materials.
- All pupils will be taught how to use all equipment properly by the class teacher before use; similarly, pupils will also be fully briefed on the importance of how to correctly use equipment and tools.
- Pupils are only allowed to use a lower temperature glue gun under one-to-one supervision – an adult will use the glue gun at all other times.
- Perishable food will be stored sensibly and refrigerated if necessary. Care will be taken by teachers and TAs to ensure food is not used after the given sell-by date.
- If any cooking or food preparation is taking place in the classroom, all surfaces will be cleaned before and after use.

### **Teaching and learning**

The school uses a variety of teaching and learning styles in D&T lessons. The main aim of these lessons is to develop pupils' knowledge, skills and understanding. Teachers ensure pupils apply their knowledge and understanding when developing ideas, planning and making, and then evaluating them.

The school uses a mixture of whole-class teaching, group work and individual activities. Pupils are given the opportunity to work on their own and collaborate with

others, listening to their classmates' ideas and treating these with respect. DT is incorporated into a cross-curricular topic based approach.

Principles for effective teaching include:

- Setting tasks in the context of pupils' prior knowledge
- Promoting active learning
- Inspiring, exciting and motivating pupils to know more

Strategies for effective teaching include:

- Ensuring the teaching methods used suit the purpose and needs of the pupils
- Providing a meaningful context and clear purpose when assigning tasks
- Investigating and evaluating activities

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### **Assessment and reporting**

The progress and development of pupils within KS1 and KS2 is assessed against the descriptors outlined in the national curriculum.

Throughout the year, teachers will plan on-going creative assessment opportunities in order to gauge whether pupils have achieved the key learning objectives. An EYFS profile will be completed for each pupil in the final term of the year in which they reach age five.

The progress and development of pupils within the EYFS is assessed against the early learning goals outlined in the 'Statutory framework for the early years foundation stage'.

Assessment will be undertaken in various forms, including the following:

- Talking to pupils and asking questions
- Discussing pupils' work with them
- Marking work against the learning objectives
- Pupils' self-evaluation of their work

Formative assessment, which is carried out informally throughout the year, enables teachers to identify pupils' understanding of subjects and inform their immediate lesson planning. The progress of pupils with SEND will be monitored by the **SENCO**.

### **Monitoring and review**

This policy will be reviewed every **two years** by the subject leader. Any changes made to this policy will be communicated to all members of staff.

All members of staff directly involved with the teaching of art, design and D&T are required to familiarise themselves with this policy.

The scheduled review date for this policy is **July 2024**.