



KINGSMOOR LOWER SCHOOL
DESIGN & TECHNOLOGY (DT) POLICY (2023)

At Kingsmoor, we aim to inspire pupils to be creative and innovative thinkers who have an appreciation for the product design cycle through drafting design concepts, modelling and testing. Developing their skills as reflective learners who evaluate their own work and the work of others.

We will provide opportunities for the children to acquire knowledge and skills to enable them to design and make models and food products using a range of resources and tools. Design Technology will be used to compliment Topics being studied by each year group, as well as developing decision making, collaboration and evaluating skills.

We aim to, wherever possible, link work to other areas of the curriculum such as mathematics, science, computing and art. We want to allow the children to aspire to be more, through creating opportunities for them in the wider world. Through the DT curriculum, children should be inspired by engineers, designers, chefs and architects to enable them to create a range of structures, mechanisms, textiles, electrical systems and food products with a real-life purpose.

DT Planning

Through a variety of creative and practical activities, we teach the knowledge, understanding and skills needed to engage in an interactive process of designing and making.

The National Curriculum is used as the base of DT curriculum planning and is organised under 5 subheadings:

- Design
- Make
- Evaluate
- Cooking and Nutrition
- Technical knowledge

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 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

Cooking and Nutrition

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

Technical Knowledge.

- apply their understanding of how to strengthen, stiffen and reinforce more complex structures
- understand and use mechanical systems in their products
- understand and use electrical systems in their products
- apply their understanding of computing to programme, monitor and control their products

Design and Technology lessons is taught within topic areas where possible, ensuring links with themes and cross-curricular elements are evident.

Implementation – Planning and Teaching

Design and Technology will engage the children in a broad range of designing and making activities which involve a variety of methods of communication, speaking, designing, drawing, assembling, making, writing, taking photographs and computer technology. Projects are taught half termly which enables teachers to focus on teaching and developing DT skills, allowing children to develop their ideas and techniques. Units of work have been selected and

planned to use a range of materials, skills, knowledge and understanding throughout each Key Stage.

Each of our key areas follow the design process (design, make and evaluate), with key areas revisited again and again with increasing complexity, allowing pupils to revisit and build on their previous learning.

Design and Technology planning is mapped in half termly blocks on the Whole School Curriculum Overview. Links with other subject areas are made where appropriate.

EYFS

The staff will plan for children to experience creative opportunities and develop key skills and techniques within the The Early Years Foundation Stage curriculum. There will be a focus on developing fine motor skills and learning how to plan, design and produce the finished project. The Reception class will be, where appropriate, included in whole school projects.

The Early Years Foundation Stage provides a rich environment in which we encourage and value creativity. We relate the creative development of the children to the objectives set out in the Early Learning Goals, which underpin the curriculum planning for children aged three to five. The children's learning includes art, designing & making, dance, role-play and imaginative play. The range of experience are imaginative and enjoyable.

Key Stage 1 and 2

Teachers will plan lessons so that children will learn to design purposeful, functional, appealing products for themselves and others based on design criteria and to communicate their ideas through talking and drawing. They learn to select from and use a range of tools and equipment to perform practical tasks and to choose from a wide range of equipment and components. They also learn to explore and evaluate their design and product.

Equal opportunities.

Whole school policy on equal opportunities will be adhered to in Design and Technology activities. Children with special needs or physical disabilities will be differentiated for and supported appropriately, to ensure development of skills and equal access to the Design and Technology curriculum.

All children will be supported through differentiation, adaptation or adult support, to enable equal access to learning in Design and Technology.

Assessment and recording.

Assessment and feedback to pupils is usually carried out by observation and oral feedback during lessons. The children's skills will be assessed and developed by the teacher during lessons. Displays will reflect a range of work across key stages, by children of all abilities.

In Key Stage 1, evidence will be kept in large floor books, creating a portfolio of examples collected during the year for each Year Group.

At Key Stage 2, pupils show their progression of their design and evaluation skills in their sketchbook with photographic evidence of their work also being included.

Images of DT work from different year groups will also be added to the school website.

Equipment and Resources.

DT resources are also stored in the DT room. A list is available on the Shared Drive for each teacher.

Collaboration with colleagues allows for planning schemes of work to support specific topics. Teachers will either select materials needed to complete a DT project from the DT resource area, purchase any materials needed for the design, construction and evaluation of a project or decide to use recycled materials or junk modelling. Children are taught to use tools and equipment in a sensible, safe and efficient manner.

The Subject Leader is responsible for ensuring that all necessary resources are available. Staff will inform the art lead if any new resources are required.

Impact

We measure the impact of our DT curriculum using various formative methods of assessment, including self and peer assessment, offering constructive advice and points of development. Observations are used to inform future teaching and learning

We aim to ensure the children:

- develop the creative, technical and practical skills 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 and 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. Children will design and make a range of products. A good quality finish will be expected in all design and activities made appropriate to the age and ability of the child.
- Children learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop an understanding of its impact on daily life and the wider world.

Monitoring and reviewing.

The school's appointed subject leader will oversee the continuity of the subject and the progression of teaching and learning within annual and medium-term plans.

They will monitor the quality of teaching and the standard of work produced.

The subject leader will offer support to colleagues and share their expertise and experience where possible.

They will encourage staff and pupils to be creative and advise teachers