

# Brookside Primary School

Ellesmere Port, Cheshire



## Design & Technology Policy

December 2022

Approved by Governors: Pending Approval

## Design and Technology Policy

At Brookside Primary School, we strive to deliver high-quality and ambitious Design and Technology curriculum which enables pupils to understand the process involved in designing and creating a product. We explicitly teach pupils the skills and knowledge they need to become competent designers, producers and evaluators. This policy sets out a framework within which teaching and non-teaching staff can work, and gives guidance on planning, teaching and assessment. It is our intent for the Design and Technology element of our school curriculum to contribute to children's personal development in creativity, independence, judgement and self-reflection. We provide opportunities for our children to engage in the process of creating purposeful products that will be used within real life contexts. Teaching equips pupils with knowledge about designers, functionality of products, problem solving and working together as a team. Pupils are also taught the relevant making skills and technical knowledge which enables the development of successful products. Areas of learning are revisited regularly as pupils progress through the school so that they are able to remember more, know more and understand more. We aim for our pupils to gain confidence and resilience in themselves as designers and producers through the teaching of a stimulating and reflective curriculum.

### Aims

- To develop knowledge and understanding of relevant Design and Technology vocabulary
- To develop making skills and technical knowledge in: structure, electrical skills, cooking and nutrition, textiles, mechanical systems
- To develop children's independence and self-reflection
- To create purposeful and functional products

### Curriculum

Pupils engage in a broad and balanced curriculum which takes account of abilities, aptitudes and physical, emotional and intellectual development. Through engaging with Design and Technology, pupils acquire relevant knowledge, develop their skills and work with a variety of materials and media to support their understanding. Across KS1 and KS2 pupils explore a range of key concepts within each DT unit. These key concepts are revisited as pupils progress through the school as this provides them with a deeper understanding. Units are carefully planned and sequenced in accordance with the Kapow Primary scheme of learning which we follow at Brookside. Each unit is planned to provide pupils with a range of opportunities to develop their skills through exciting and engaging lessons. Second order concepts are also taught and applied within each unit of art and build progressively as pupils move through the school.

### Early Years

Early Years engage with Design and Technology within their provision. They are provided with a range of materials to create and make things. Teaching staff encourage children to think about what they are creating, why they are creating it and how they can overcome any problems encountered. Children are also encouraged to investigate how things work and why they have been created that way. Children also draw, build and make things which fulfil a function.

## Key Stage 1

During Key stage 1 children learn the knowledge and skills needed to design and make products for a range of relevant contexts. Children are provided with opportunities to design and test products that are purposeful and appealing. Children will also carefully select tools and materials which are the most suitable to make their product. Throughout the process, children will evaluate their products against existing products and design criteria. Children will also develop the technical knowledge needed to build structures which are stronger and more stable and will also use a range of mechanisms. Children will also develop an understanding of where food comes from and how to use the basic principles of a healthy diet to prepare their own simple dishes.

## Key Stage 2

During Key stage 2 children develop further knowledge and skills to enable them to design and make purposeful and quality products in different contexts. They will be able to research how existing products work and use this to develop designs and products to meet a design brief. Children will also be able to produce more detailed, annotated designs and will be able to test and refine their ideas. Children will work with a wider range of tools and materials according to their function and properties. Children will develop the technical knowledge required to make their products work effectively. Children will further develop their evaluating skills and will evaluate the effectiveness and quality of their products. They will use this to improve their work. Children will also develop an understanding of a healthy and varied diet and will be able to prepare and cook a range of dishes.

## Design & Technology curriculum planning

At Brookside Primary School we use the Kapow Primary scheme as a basis for Design and Technology planning. The Design and Technology scheme has been developed with the support of D&T experts of different backgrounds. The scheme ensures the full coverage of the National Curriculum through the teaching of the different units. The curriculum is focused around the key concepts. Throughout the year, we explore different aspects of Design and Technology and build pupils' skills and knowledge in each aspect as they progress through the school.

## Key Concepts

- Designing
- Making
- Evaluating
- Technical knowledge
- Cooking and nutrition

## Second order concepts

These second order concepts will be explored and developed throughout the DT curriculum as pupils move through the school. They can be used across all aspects of a subject to organise the substantive knowledge taught.

- Responsibility: (working safely, how design can solve problems, choosing the right materials, responsibilities to customers to ensure quality/reliable products, healthy eating, quality ingredients)
- Similarity and difference: (making comparisons, noting differences and drawing conclusions)

- Cause and consequence: (identifying how things work how an action can cause change/movement)
- Significance: (significant designers and designs, real world examples of effective and successful products)
- Written and oral expression: (using terminology, evaluating, creating accurate designs, labelling and annotating, explaining processes, presenting)

Key vocabulary is displayed interactively within a classroom, where subject specific words are referred to consistently throughout a theme. Knowledge organisers have been created to explicitly identify the key knowledge, skills and vocabulary pupils need to acquire within each D&T unit.

### Assessment and Recording

At Brookside Primary School, assessment is an integral part of the teaching process. Children record their learning in their curriculum books, including the more practical aspect of their learning. The assessment of children's work is on-going to ensure that understanding is being achieved and that progress is being made. Feedback is given to the children as soon as possible and marking work will be guided by the school's Marking Policy. Teachers record the progress that children make termly using our online assessment system, Educater. Endpoints have been devised by leaders to ensure that children reach age related standards by the end of the year.

### Monitoring

Monitoring takes place regularly through sampling children's work, teacher planning, book scrutiny, learning walks and lesson visits.

### Roles and Responsibilities

The Head teacher will:

- actively support and encourage staff, praising good practice and supporting staff development, in-service training (particularly for the DT leader) and acquiring resources.

The DT Leader will:

- advise and support staff in planning, teaching and learning of DT;
- monitor teachers' planning as part of on-going subject monitoring and evaluation of practice;
- use feedback from monitoring to develop an action plan for art with realistic and developmental targets;
- audit, identify, purchase and organise all DT resources, ensuring they are readily available and well maintained;
- document and review the agreed ways of working through a written policy document and knowledge and skills progression;
- oversee the compilation of a portfolio of children's work on the Brookside Blog to evidence progression and examples of good practice for staff to refer to;
- keep up to date on new developments in the use of DT in the curriculum and inform staff;
- promote DT throughout the school.

The Class Teacher will be responsible for the planning and teaching of DT as set out in this policy;

- use 'Key Performance Indicators' to inform teaching and learning as well as assess children's understanding;
- follow the subject's long term plan and develop termly year group medium term plans and pacing sheets;
- embed the Knowledge and Skills Progression document within planning and quality first teaching;
- create and regularly refer to a key vocabulary display within the classroom linked to each theme.

### Resources

We have a wide range of resources within the school DT resource base and the subject leader audits half—termly to ensure that we are stocked appropriately to deliver our curriculum. Additional purchases are made where relevant. Visits are planned to enhance learning and give hands on activity when applicable. Planning and resourcing is adapted from the Kapow Primary Scheme. The local Cheshire Library is fully available to support learning where topic resources can be obtained. In addition, local persons with expertise in particular topics are invited to visit the school and enthuse and inspire our pupils.