



**Mexborough St John the Baptist
Church of England Primary**

Design Technology Policy

Design is intelligence made visible

- Alina Wheeler

Intent:

At Mexborough St John's, children receive a design and technology curriculum which allows them to exercise their creativity through designing and making. Our design and technology curriculum is designed to prepare children for the developing world. The subject encourages children to become creative problem-solvers, both as individuals and as part of a team. Through the study of design and technology children combine practical skills with an understanding of aesthetic, social and environmental issues, in order to design and make a product. Evaluation is an integral part of the design process and allows children to adapt and improve their product, this is a key skill which they need throughout their life. Design and Technology helps all children to become discriminating and informed consumers and potential innovators. We feel that the teaching of food and nutrition is of great importance and holds great relevance in current times. For this reason, children will study a food and nutrition unit every year. 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.

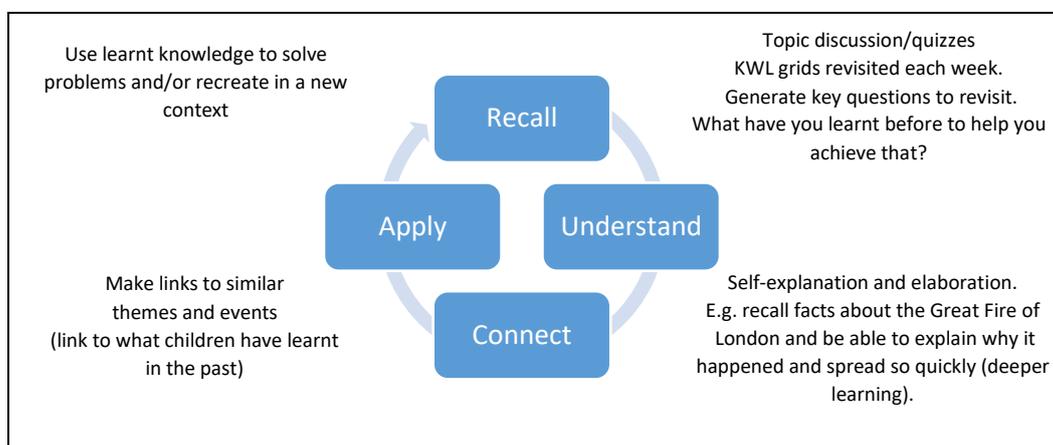
Implementation:

There is a clear rationale behind our DT curriculum which is built around essential knowledge, understanding and key skills. These are broken into year group expectations and show clear continuity and progress. Learning is organised into four main areas; Mechanisms and Mechanical Systems, Structures, Textiles and Cooking and Nutrition.

All teaching of design and technology follows the design, make and evaluate cycle. The design process should be relevant in context, to give meaning to learning. While making, children should be given choice and a range of tools to choose freely from. When evaluating, children should be able to evaluate their own products against a design criteria. Each of these steps should be rooted in technical knowledge and vocabulary.

Clear content sequencing, progression maps and knowledge organisers, place this in the context of long-term knowledge growth.

Intelligent repetition of key skills and concepts enables children to strengthen memory over time, thus leading to deeper understanding. It is essential that children remember the knowledge that they have been taught so that learning 'sticks' for them to understand new knowledge, make learning links and apply this in different contexts. The core skills of recall, understand, connect, and apply are used to facilitate this.



Early Years:

Children make imaginative and complex 'small worlds' with blocks and construction kits. They explore different materials freely, in order to develop their ideas about how to use them and what to make. Children safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. Creations are shared and celebrated with children explaining the process they have used.

Key Stage 1:

In Key Stage 1, children evaluate existing products for purpose and audience before planning their own. They make simple sketches and use annotations when considering design choices and can evaluate their products against a simple design criteria. In Year 1 children investigate how to create stable structures. They create simple mechanisms by designing moving pictures containing a slider, lever, pivot or wheel. This forms the basis for work in Y2 when children explore creating movement through the use of wheels, axles and chassis when designing fire engines as part of their Great Fire of London topic. In Year 2 children will also learn simple sewing techniques when creating hand puppets.

By the end of Key Stage 1 children will be aware of the principles of healthy eating (specifically the importance of breakfast and 5 a day) They will know where some of their food comes from and how to prepare a simple dish safely and hygienically.

Key Stage 2:

In Key Stage 2 design projects are rooted in real life with relevant contexts giving meaning to learning. Children research designs based on function, appeal and audience. They plan by appropriate methods; annotated sketches, cross-sectional diagrams, prototypes, pattern pieces and computer aided design. Children build on their knowledge of mechanical systems from Key Stage 1 by learning about different control mechanisms including how to use pneumatics and cam mechanisms. In textiles projects children develop a wider range of stitching techniques, using them to join and embellish materials in the context of purposeful projects.

By the end of Key Stage Two, children will be secure in the principles of a healthy and varied diet. They will know that food comes from different parts of the world, understanding how a variety of ingredients are grown. Children will research, prepare and evaluate a range of savoury dishes including those from other cultures taking into consideration the dietary requirements of their audience.

Differentiation for vulnerable groups (SEND, Pupil Premium, etc.)

As the curriculum is supposed to be challenging for all Pupils, some may find this trickier to access. Throughout the teaching sequence ensure learning is differentiated and the Teaching Assistant is deployed at all appropriate points. Bear in mind ideas to include SEND Pupils to ensure they can access learning alongside their peers.

Impact:

Pupils' learning over time, reflects the intended curriculum. The concepts and big ideas provide the schema through which meaning is made and helps to ensure long term knowledge growth. This in turn ensures pupils know more and can do more.

Research shows that repetition of course content leads to sticky learning; the transfer of knowledge from the short term to long term memory. At Mexborough St John's, we achieve this through regular retrieval practise. Children can speak with confidence about what they have learnt and how they can apply this to other parts of their learning.

Assessment:

Assessment is ongoing through geography units of work and includes a range of techniques to be more supportive of learning. Assessment may be done through assessment questions included on knowledge organisers, teacher questioning that probes understanding, marking and feedback and retrieval practice.

The impact of our curriculum will be seen not only in measurable attainment and progress, but that St John the Baptist Primary School creates polite, well-mannered caring members of our school community who understand and respect everybody's differences and needs.