

‘Technology makes what was once impossible, possible.

The design makes it real.’

At St Brendan’s Catholic Primary, our Design and Technology curriculum is crafted to nurture innovative and skilled designers and makers. We inspire pupils to become creative individuals with the skills to design, make and evaluate products that solve real and relevant problems in an ever-developing climate. Through D&T, children develop creativity, imagination and become equipped with the skills to become independent, creative problem solvers. It is important that learners are presented with opportunities to innovate and take risks, which fosters their resourcefulness and resilience.

Our scheme of work incorporates the National Curriculum aims to ensure all pupils:

- Develop their creativity alongside their technical skills
- Gain the knowledge needed to design and make high quality products
- Evaluate and improve their creations
- Understand nutrition principles

Our D&T curriculum is structured by identifying four significant aspects of learning: design, make, evaluate and technical knowledge. These strands are woven throughout our lessons and are all of equal importance. They ensure balanced coverage of different areas within the subject.

In the design process, pupils learn about the different stages of product design. They start with research, defining design criteria tailored to users’ needs. Pupils develop their ideas using sketches and models.

The make strand equips pupils with the practical skills they need to bring their designs to life. They become increasingly skilled at selecting appropriate tools and equipment, using them accurately and safely. They begin to make informed decisions when choosing materials and ingredients, considering appearance and function.

Through the evaluate strand, pupils learn to examine products by assessing them against design criteria to consider how they could be further improved. The children also evaluate existing designs, including those created by influential designers or during key events in the history of Design and Technology, which helps inform and improve their own designs and shows pupils how the subject has shaped the world around us.

Technical knowledge of materials, tools, techniques and processes underpins each stage of the design process. In the design phase, pupils use this knowledge to explore possibilities. In the make strand, they apply it practically and in the evaluation phase it helps them to critically assess their work.

The curriculum is structured in a spiral approach, where learning is revisited and built upon with increasing levels of complexity as the pupils move throughout Key Stages at St Brendan's Catholic Primary School.

In the Early Years Foundation Stage, children begin their Design and Technology journey by exploring, using media and materials while developing physical skills such as cutting and joining. Children are provided with opportunities to present their ideas in a variety of ways and follow their own interests.

Over a 2 year cycle, each year group features units of lessons in the following key areas:

- Cooking and nutrition
- Mechanisms and Mechanical systems
- Structures
- Textiles

Pupils in KS2 also engage in units of lessons covering:

- Electrical systems
- Digital world

In Cooking and Nutrition units, pupils learn vital life skills so they can prepare and cook nutritious meals. They learn about food origins and seasonality, how to adapt and follow recipes, cooking and food preparation skills, the importance of food safety and hygiene and the principles of healthy eating. All pupils within our school experience a day at the Kingswood Catering teaching kitchen throughout the academic year, which provides them with the opportunity to work in a real kitchen and use a variety of ingredients and tools safely and efficiently.

In the Mechanisms unit, pupils learn about simple machine and mechanical systems. They explore these components, figuring out how they work in their common uses in everyday objects, before incorporating mechanisms into their own design projects.

In the Structures unit, pupils explore the principles of building strong and stable structures by experimenting, testing and studying real world examples. This helps pupils gain a basic understanding of the principles of engineering and architecture.

In the Textiles unit, pupils develop their cutting, shaping, joining and finishing skills with fabric. They learn sewing techniques and undertake textile projects following the design process.

In KS2, pupils learn and apply the concepts of electrical circuits, considering how these can be applied to design and create functional products. They also explore digital world units, developing and using their programming skills to design interactive and responsive products.

The curriculum is structured in a spiral approach, where learning is revisited and built upon with increasing levels of complexity as the pupils progress across year groups throughout their time at St Brendan's Catholic Primary School.

To help pupils think like designers, all units follow the simple process of design, make, evaluate. This approach mirrors professional practice, reflecting the systematic journey from concept to product.

Pupils are encouraged to recognise how their learning of specific subjects' skills interlink with others. The themes of the curriculum at St Brendan's are carefully chosen to allow children to connect their D&T projects to their learning in other subjects. In our school, D&T is recognised and celebrated because all pupils should be given the opportunity to create a product that they are proud of. It also allows them to reflect on their achievements and learn from any challenges they may have encountered. In our school, children are given the opportunity to share their skills and achievements with their families through our focused craft afternoons which take place for key events throughout the year, which motivates the children to develop their skills and explore their creativity. D&T is an excellent way to support our pupils' spiritual, moral, social and cultural development; it enables pupils to work cooperatively with others, whilst allowing them to explore the thoughts, ideas and beliefs of themselves and others, which supports their ability to solve real and relevant problems using their creativity and imagination.