



Court de Wyck Church School Design and Technology Policy

Growing Together, Belonging and Achieving

Everybody in our caring Christian Community inspiring, nurturing and challenging each other to do their best in mind, body and spirit to achieve more than they ever thought possible.

John 10:10 'Life in all its fullness'

Our Curriculum Intent

At Court de Wyck Church School our curriculum is child-centred, aspirational and purposeful in order to instil within our pupils the knowledge, skills and confidence needed for their ever-changing futures. Its focus is on nurturing pupils' natural curiosity and love of active learning, supporting them to develop resilience and understanding of the world around them. It encourages pupils to make connections and to be creative, independent thinkers who relate their learning to real-life experiences. At the heart of our curriculum are our Christian values and the dedication to working collaboratively to achieve more than we ever thought possible.

Our Design Technology Intent

- It is tailored to meet the needs of Court de Wyck Church School, its context within a semi-rural village setting and its pupils who come from a diverse social background.
- It is rooted in the needs of our community, drawing on local culture and heritage.
- It provides experience of and connections to the world beyond the school through a comprehensive programme of external visits/visitors.
- It provides a broad range of creative learning experiences to develop children's moral, spiritual, social, mental, physical and cultural understanding through our whole school values and the development of a contextually relevant curriculum.
- Is ambitious and aspirational for all pupils inspiring them to believe they can achieve more than they ever thought possible.
- It recognises and celebrates diversity welcoming each pupil as an individual.
- It secures pupils' core skills, knowledge and understanding to at least an age appropriate level and beyond, and is adapted, designed, and developed for pupils with additional learning needs or disabilities.
- It provides coverage of the National Curriculum and ensures children make good progression from EYFS to Y6
- It provides enrichment opportunities to broaden and enhance the curriculum experience for pupils through engaging Enquiry Questions and contextually specific learning opportunities to develop 'The Court de Wyck Child'.
- Is flexible and responds to pupils' interests, understanding and progress.



Our DT curriculum is based on the following principles:

- Providing opportunities for children to use their creativity and imagination to design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values.
- Children develop a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering and art.
- Children learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens.
- Through the evaluation of past and present Design and Technology, children develop a critical understanding of its impact on daily life and the wider world.
- Capturing children's interest in Design and Technology through practical opportunities to make an essential contribution to the creativity, culture, wealth and well-being of the nation.

Intent Overview by Key Stage:

We have variable mixed age classes and so we plan the progression of learning for pupils in cycles. These ensure that pupils have the pre-requisite knowledge to learn new material, make links and remember more. This is a summary of what the pupils will learn in each key stage. More detail about an individual cycle is available.

Early Years Foundation Stage:

DT is taught in Early Years as an integral part of the learning theme through child-initiated and adult led activities. The development of children's artistic and cultural awareness supports their imagination and creativity. The children have regular opportunities to engage with the arts, enabling them to explore and play with a wide range of media and materials.

During the EYFS, children will:

- Develop their small motor skills so that they can use a range of tools competently, safely and confidently
- Explore, use and refine a variety of artistic effects to express their ideas and feelings.
- Return to and build on their previous learning, refining ideas and developing their ability to represent them.
- Create collaboratively, sharing ideas, resources and skills.
- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.
- Share their creations, explaining the process they have used.



Y1 – Y6 are on a carefully planned bespoke topic programme using Curriculum Maestro which enables all children to learn an ambitious and engaging curriculum to inspire future career aspirations. The Design and Technology projects are well sequenced to provide a coherent subject scheme that develops children's designing, planning making and evaluating skills. Each project is based around a design and technology subject focus of structures, mechanisms, cooking and nutrition or textiles. The design and technology curriculum's electronic systems and IT monitoring and control elements are explicitly taught in our science projects to ensure the links between the subjects are highlighted. Where possible, meaningful links to other areas of the curriculum have been made. Throughout Key Stages 1 and 2, children build up their knowledge and understanding of the iterative design process. They design, make, test and evaluate their products to match specific design criteria and ensure they fit their purpose. Throughout the projects, children are taught to work hygienically and safely.

Key Stage 1

In KS1 children begin to learn about structures in the project Shade and Shelter before designing and making a shelter. Children also study the project Taxi! where they learn the term 'mechanism' and assemble and test wheels and axles. Children extend their studies as they begin to learn about food sources in the project Chop, Slice and Mash and use simple preparation techniques to create a supermarket sandwich.

Throughout KS1 children are also provided with the opportunity to learn more about food in the project Remarkable Recipes, where they find out about food sources, follow recipes and learn simple cooking techniques. During the project Beach Hut, children develop their knowledge of structures further, learning to cut, join and strengthen wood for the first time. Children will begin to develop their understanding of textiles in Cut, Stitch and Join. They learn to sew a simple running stitch, use pattern pieces and add simple embellishments. They also continue to learn about mechanisms in the project Push and Pull by using sliders, levers and linkages in products.

Lower Key Stage 2

Children continue to learn about food, understanding the concept of a balanced diet and making healthy meals in the project Cook Well, Eat Well. Throughout the project Making it Move, children extend their understanding of mechanisms by exploring cams and using joining and finishing techniques to make automaton toys. Children continue to develop their knowledge of structures, using triangles and braces for strength, in the project Greenhouse. They design and build a greenhouse, using their understanding of opacity and transparency and the needs of plants from science learning to inform their design.

As children move throughout lower KS2, they develop their understanding of food in the project Fresh Food, Good Food. They learn about food safety and preservation technologies before designing and making packaging for a healthy snack. The project Functional and Fancy Fabrics, enables children to continue to explore textiles, learning about the work of William Morris before designing, embellishing and finishing a fabric



sample. The final project, Tomb Builders teaches children how they build on their knowledge of mechanisms, learning about six simple machines and using their knowledge to create a lifting or moving device prototype. They also explore and use electrical systems and IT monitoring and control in the science project Electrical Circuits and Conductors for the first time.

Upper Key Stage 2

Children deepen their understanding of mechanisms by studying pneumatic systems in the project Moving Mechanisms. They learn about the forces at play and create a prototype for a functional, pneumatic machine. The project Eat the Seasons, enables children to continue to explore food and nutrition, learning about seasonal foods and the benefits of eating seasonally. Children learn more about structures in the project Architecture, studying the history of architecture and developing new ways to create structural strength and stability. They use computer-aided design and consolidate their making skills to produce scale models. They also explore the electrical conductivity of materials before making products incorporating circuits in the science project Properties and Changes of Materials.

Children learn about processed and whole foods in the project Food for Life, creating healthy menus from unprocessed foods. They consolidate their knowledge of structures, joining and strengthening techniques and electrical systems by completing a bridge-building challenge, in the project, Engineer. Throughout the project Make Do and Mend, children extend their knowledge of textiles by learning new stitches to join fabrics and using pattern pieces to create a range of products.

Throughout the Curriculum Maestro Design and Technology scheme, there is complete coverage of all National Curriculum programmes of study. The scheme allows teachers to interrogate the sequencing of curriculum aspects and concepts, vocabulary and connectivity of the Design and Technology scheme with other curriculum subjects.

Throughout the projects, children are taught to work hygienically and safely. Pupils are made aware of any hazards, risks and risk control in every lesson and encouraged to:

- Collect, use and return tools and equipment safely
- Follow clear instructions
- Only move around the classroom when necessary
- Wear safety equipment whenever necessary
- Understand the reasons and importance of health and safety guidance.



Implementation

At Court de Wyck, pupils are provided with an ambitious curriculum in Design and Technology which is tailored to be inclusive for all. Our mixed aged classes enjoy a rolling program which covers the National Curriculum Programme of Study and is tailored to ensure good progression across the key stages. These run across the whole school in order to support children with developing their designing and technological understanding and skills year on year to enable children to effectively know more and remember more.

Throughout our pupils learning in Design and Technology we ensure that all pupils:

- Develop the creative, technical and practical expertise 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.
- 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.

Impact

At Court de Wyck, we intend for the impact of our high-quality Design and Technology curriculum to be that pupils will learn the curriculum each year so that by the end of their time at school they will have a strong understanding of what it means to be a designer and have learnt the key knowledge they need to succeed and prosper. Disadvantaged pupils and pupils with SEND will acquire the knowledge and skills needed to move on to the next stage of their education.

Our impact is measured through regular book looks, learning walks and informal assessment of children's understanding and progress by the class teacher. Each classroom has room to display practical work and key vocabulary. Knowledge organisers are used for each unit of work which can be referred back to when reviewing prior learning. Regular revisiting of learning is an integral part of each lesson and enables teachers to use AFL effectively to move children's learning forward. Teachers are also able to monitor progress in Design and Technology by regular informal discussions with children and observing children as they work.