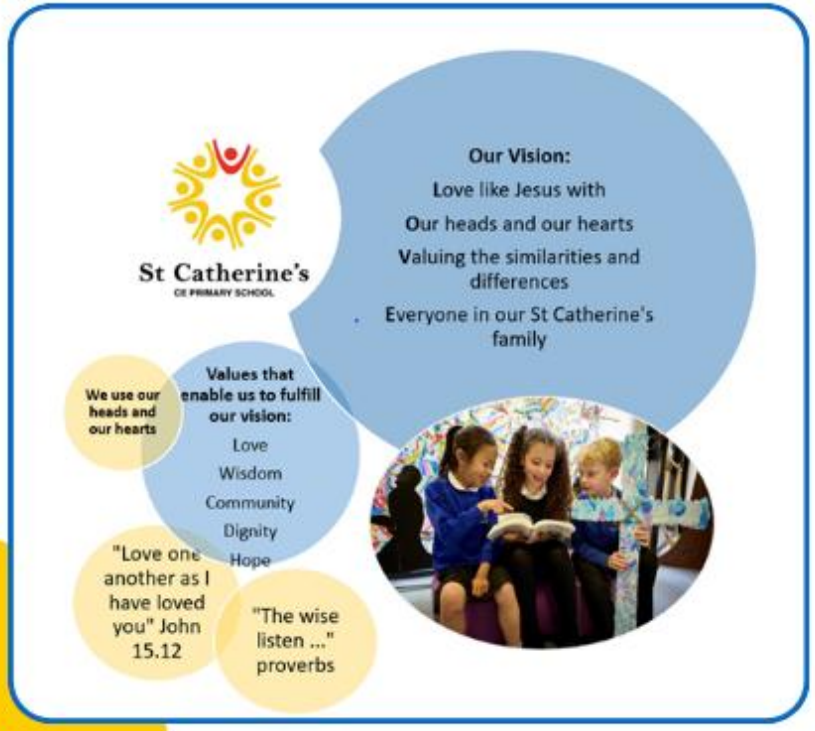
ST CATHERINE'S CE PRIMARY SCHOOL
DESIGN & TECHNOLOGY CURRICULUM OVERVIEW



At St Catherine's, Design and Technology plays a meaningful role in helping children live out our Christian vision: "We love like Jesus with our heads and our hearts, valuing the similarities and differences of everyone in our St Catherine's family." Through engaging and purposeful projects, children are encouraged to use their creativity and problem-solving skills to design solutions that serve others, demonstrating love, empathy, and care—just as Jesus did.

Design and Technology allows pupils to explore how their ideas can make a difference in the world. Whether designing for a friend, a family member, or a wider community need, children are taught to consider the feelings, preferences, and needs of others, promoting compassion and understanding. They learn to listen respectfully to others' ideas, work as a team, and celebrate the unique contributions that each person brings.

As they plan, make, and evaluate their projects, children learn to think critically (with their heads) and act compassionately (with their hearts), growing in confidence and resilience. The collaborative nature of Design and Technology helps them appreciate differences in culture, background, and ability, reflecting the inclusive and loving community we strive for at St Catherine's.

In this way, Design and Technology encourages children to love, serve, and value one another in all that they do.

DT Curriculum at St Catherine's C of E Primary School

At **St Catherine's C of E Primary School**, our Design and Technology curriculum aims to inspire pupils to become **innovative and creative thinkers** who understand and value the product design process. Through designing, making and evaluating, pupils develop the confidence to take risks, test ideas and reflect on their work in order to improve outcomes. We aim to equip pupils with the skills and knowledge to become **resourceful, enterprising citizens** who understand the impact of design and technology in the wider world.

Our curriculum is delivered through the **Kapow Primary Design and Technology** scheme of work, which ensures full coverage of the National Curriculum and provides clear progression of knowledge and skills across the school. The curriculum is structured around the four National Curriculum strands: **Design, Make, Evaluate and Technical Knowledge**. These strands underpin all learning and support pupils in understanding the full design process while developing technical understanding.

Pupils revisit key areas throughout their time in primary school to build and deepen their knowledge and skills. These areas include **cooking and nutrition, mechanisms and mechanical systems, structures, textiles, electrical systems (KS2) and the digital world (KS2)**. Cooking and nutrition is given particular emphasis, enabling pupils to understand where food comes from, the principles of healthy eating and key food preparation skills.

Teaching and learning incorporate a range of strategies including **independent tasks, collaborative work and practical hands-on experiences**. Lessons are designed to be engaging and accessible for all learners, with differentiated guidance and opportunities for challenge. Knowledge organisers support pupils in developing and recalling key vocabulary and concepts, while teacher guidance and subject knowledge resources ensure staff are well supported to deliver high-quality lessons.

Assessment is embedded throughout the curriculum through **ongoing formative assessment**, alongside unit quizzes and knowledge catchers which allow teachers to monitor pupils' understanding and progression. This ensures that learning builds securely over time and that pupils meet the **end of Key Stage expectations outlined in the National Curriculum**.

By the end of primary school, pupils will:

- Understand the properties and uses of a range of materials and resources.
- Apply a range of tools and techniques to design and make purposeful products.
- Develop and adapt ideas to create innovative solutions for real-life contexts.
- Understand the principles of healthy eating and basic food preparation.
- Recognise how design and technology impacts everyday life and the wider world.
- Evaluate and improve their work through reflection and testing.

Our Intention is to ensure that the children at our school:

- **Enjoy it**
- **Believe they can do it**
- **See the purpose in it**
- **Do it confidently**
- **Can do it now, tomorrow and forever**

Every subject, every cross- curricular theme, every aspect of our work is an 'it'!
Every child has at least one 'it' – we need to find it!

Through this approach, pupils leave **St Catherine's C of E Primary School** with the **knowledge, creativity and practical skills** needed to succeed in the next stage of their education and to contribute positively to future technological and design developments.

Key Stage 1 Overview

At Key Stage 1, Design and Technology develops pupils' creativity, practical skills and understanding of how everyday products are designed and made. The curriculum is carefully sequenced to build foundational knowledge and skills through practical, hands-on experiences where pupils design, make and evaluate purposeful products.

Our Design and Technology curriculum is supported by the **Kapow Primary Design and Technology** scheme of work. This provides a clear progression of knowledge and skills across Key Stage 1 and ensures coverage of the National Curriculum while supporting teachers to deliver engaging, practical lessons.

Across Key Stage 1, pupils complete **six units** which cover the key areas of **mechanisms, structures, textiles, and cooking and nutrition**. These units are carefully sequenced to develop pupils' understanding of materials, simple construction techniques and basic food preparation skills.

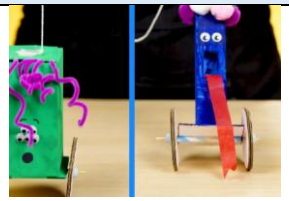
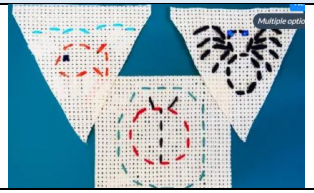
Pupils learn about **mechanisms** by exploring how simple components such as sliders, levers and wheels create movement in products. They design and make their own moving models, developing an early understanding of mechanical systems.

Within **structures**, pupils investigate how structures are built and how they can be strengthened and stabilised. They experiment with different materials and joining techniques while designing and constructing their own models.

In **textiles**, pupils learn how to join fabrics using simple techniques such as gluing and basic stitching. They design and make simple textile products, developing fine motor skills and an understanding of materials.

Through **cooking and nutrition**, pupils learn about the importance of a healthy diet and where food comes from. They develop basic food preparation skills such as cutting, peeling, mixing and assembling ingredients while making simple healthy dishes.

Throughout all units, pupils follow the **design process of designing, making and evaluating**, allowing them to develop problem-solving skills and reflect on how their products meet a given purpose. By the end of Key Stage 1, pupils will have developed the essential knowledge and practical skills needed to prepare them for more complex Design and Technology learning in Key Stage 2.

Year 1		Year 2	
Mechanisms		**Mechanisms**	
Design a pull along toy Year 1 DT Unit: Mechanisms: Wheels and axles		Levers Year 2 DT Unit: Levers	
Structures		**Cooking and Nutrition**	
Make a stable pencil pot Year 1 DT Unit: Stable structures		Balanced diet - wraps Year 2 DT Unit: Balanced Diet - Wraps	
Textiles		Textiles	
Simple Stitches Year 1 DT Unit: Simple Stitches		Pouches Year 2 DT Unit: Textiles | Pouches	

Key Stage 2 Overview

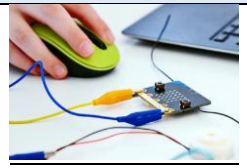
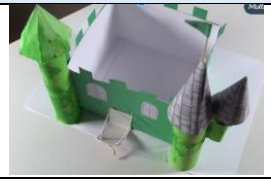
At Key Stage 2, Design and Technology enables pupils to develop creativity, technical knowledge and problem-solving skills through purposeful designing and making. The curriculum builds progressively on the foundations established in Key Stage 1 and provides pupils with opportunities to apply their knowledge to increasingly complex design challenges.

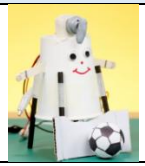
Our Design and Technology curriculum is supported by the **Kapow Primary Design and Technology**, which ensures clear progression of knowledge and skills and full coverage of the National Curriculum. Units are carefully sequenced so that pupils revisit and deepen their understanding of key areas including **mechanisms, structures, textiles, electrical systems, cooking and nutrition and the digital world**.

In **Lower Key Stage 2**, pupils develop their understanding of designing for purpose while strengthening practical making skills. They explore the **Digital World** through designing **wearable technology** and creating a **mindful moments timer**, developing an understanding of how technology can be used in everyday products. In **Textiles**, pupils learn about different **fastenings** and apply their knowledge to design and make a **book sleeve**. Within **Cooking and Nutrition**, pupils learn about **seasonality** and prepare dishes such as **tarts**, developing their understanding of healthy eating and food preparation skills. Pupils are also introduced to **Electrical Systems** by designing and making **torches**, and they study **Structures** through designing and constructing **castles**, learning about stability, strengthening and reinforcement.

In **Upper Key Stage 2**, pupils apply their growing technical knowledge to more complex projects. In **Mechanisms**, pupils explore **gears and pulleys** through the design of an **eco-gadget bike**, developing an understanding of how mechanical systems transfer motion. In **Electrical Systems**, pupils design and build a **steady hand game** and create **wobble bots**, applying their knowledge of circuits, motors and components. In **Cooking and Nutrition**, pupils learn to **develop and adapt recipes**, including creating a **simple Bolognese dish**, considering nutrition, taste and seasonality. Within **Textiles**, pupils design and make **bags**, applying sewing techniques and considering both function and aesthetics. Pupils also complete an **enterprise project**, which develops their understanding of how products are designed, produced and marketed while promoting teamwork, creativity, problem solving and financial awareness.

Throughout Key Stage 2, pupils follow the **design, make and evaluate** process. They are encouraged to research users' needs, generate ideas, select appropriate materials and tools, and evaluate the effectiveness of their products. By the end of Key Stage 2, pupils will have developed the technical knowledge, practical skills and design thinking required to approach more complex design challenges and understand the role of Design and Technology in the wider world.

Year 3		Year 4	
Digital World		**Textiles**	
Wearable technology Year 3 DT Lesson Plans | Digital World		Fastenings - Making a book sleeve Lower KS2 DT Lesson Plans | Textiles And Fastenings	
Cooking and Nutrition		**Electrical Systems**	
Eating Seasonally Lower KS2 DT Lesson Plan & Videos | Making Tarts		Torches KS2 Torches and Electrical Systems - Year 4 Lesson Plans	
Structures		Digital World	
Constructing Castles Design and Build a Castle Lesson Plans | KS2 DT		Mindful moments timer Digital world: Mindful moments timer	

Year 5		Year 6	
Mechanisms		**Electrical Systems**	
Gears and pulleys - Eco-gadget bike Year 5 DT Unit – Eco-Gadget Bike		Steady Hand game Year 6: Steady Hand Game	
Cooking and Nutrition		**Textiles**	
Developing a simple Bolognese recipe Year 5 Unit: Developing a recipe		Bags Year 6: Textiles: Bags	
Electrical Systems		**Enterprise Project**	
Wobble bots Year 5 DT Unit: Wobble Bots		This project gives pupils an insight into how business works and helps them to build skills for the future, such as team-working, problem solving, leadership, money management and creativity.	