



Design and Technology Curriculum

Intent

At Chambersbury, Design and Technology is a creative, practical and inspiring subject that empowers children to become confident problem-solvers, innovators and changemakers. Through meaningful design opportunities, pupils develop the knowledge, skills and resilience to improve the world around them by identifying needs, generating ideas and creating purposeful solutions that make a positive difference.

Our curriculum is rooted in the National Curriculum for Design and Technology, which aims to ensure that all pupils:

- develop the creative, technical and practical expertise needed to perform everyday tasks confidently and 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.

We believe that Design and Technology provides children with opportunities to develop empathy, creativity and responsibility. By working together to solve authentic problems, pupils learn that good design begins with understanding the needs of others. They become active contributors to their communities, recognising that their ideas and actions can create positive change both locally and globally.

Our curriculum promotes collaboration, communication and resilience, encouraging pupils to value different perspectives, take informed risks and reflect critically on their work. Sustainability, inclusion and innovation are woven throughout our projects, enabling children to consider the environmental, social and ethical impact of design decisions.

Knowledge and skills are carefully sequenced from the Early Years through to Year 6, ensuring progression in designing, making, evaluating and technical understanding while making meaningful links with science, mathematics, computing, art and the wider curriculum.

Implementation

At Chambersbury, the Design and Technology curriculum provides children with regular opportunities to engage in the complete design process through carefully planned, progressive units of work.

Each project enables pupils to:

- investigate and evaluate existing products and the work of designers, engineers and inventors;

- identify real-life problems or opportunities;
- design products for a specific purpose and user;
- select and use appropriate materials, tools and components safely;
- make high-quality products using an increasing range of technical skills;
- test, evaluate and refine their work in response to feedback and self-reflection.

Collaboration is central to our approach. Pupils work in pairs, small groups and teams to explore ideas, solve problems and make collective decisions. They learn to listen respectfully, negotiate solutions, share responsibilities and celebrate one another's strengths.

Children are encouraged to think like designers by asking thoughtful questions such as:

- Who is this product for?
- What problem does it solve?
- How could it improve people's lives?
- How can we make it more sustainable?
- How can we improve our design?

Across the curriculum, pupils progressively develop knowledge and skills in:

- mechanisms;
- structures;
- textiles;
- food and nutrition;
- electrical systems;
- digital technologies.

Teachers explicitly teach technical vocabulary and model practical skills, ensuring children develop confidence and accuracy when using tools, equipment and materials safely.

Assessment is ongoing throughout each project through discussion, observation, questioning, practical outcomes and pupil reflection. Feedback encourages children to refine their thinking and recognise that evaluation and improvement are essential parts of the design process.

Where appropriate, learning is enriched through links with local communities, enterprise activities, STEM experiences and environmental projects, helping children understand the relevance of Design and Technology beyond the classroom.

Impact

At Chambersbury, the Design and Technology curriculum develops children who are confident creators, collaborative learners and thoughtful change makers.

By the time they leave Chambersbury, pupils:

- confidently apply the design process to solve increasingly complex problems;
- demonstrate secure knowledge and technical skills across all areas of the curriculum;
- work effectively with others, recognising that successful outcomes often depend on teamwork and shared thinking;
- show resilience by testing, evaluating and improving their designs;
- communicate and justify design decisions using accurate technical vocabulary;
- understand how design and technology influence everyday life and can improve communities and the wider world;
- consider the needs of users alongside environmental, ethical and sustainable choices when designing products.

Children leave Chambersbury with the confidence to innovate, the curiosity to ask meaningful questions and the belief that they can use their creativity and practical skills to make a positive difference. They understand that successful design is built upon empathy, collaboration, critical thinking and continual improvement.

Impact

The success of Design and Technology at Chambersbury is reflected through:

- pupils who speak enthusiastically and confidently about their learning;
- design books, journals and portfolios that demonstrate clear progression in knowledge, skills and design thinking;
- high-quality products that show creativity, technical accuracy and thoughtful evaluation;
- children who collaborate effectively, solve problems independently and persevere when faced with challenges;
- assessment information showing strong progress from individual starting points;
- learning walks, pupil voice and subject monitoring that demonstrate high levels of engagement, ambition and enjoyment;
- pupils making meaningful connections across subjects and recognising how designers, engineers and inventors improve the world.

Through Design and Technology, Chambersbury enables pupils to learn that every challenge is an opportunity to innovate, every project is an opportunity to work together and every child has the potential to be a change maker.