



Design Technology

Substantive and Disciplinary Knowledge

At Birchington CE Primary School, we recognise the importance of encouraging pupils to think, share ideas and creatively solve problems in the world around them. We strive to develop their technical understanding and skills so that they can learn about design methods and investigate their environment and its everyday materials.

Through our curriculum, we aim to build an awareness of the impact of Design & Technology on our lives and encourage pupils to become resourceful, problem-solving citizens who will have the skills to contribute to the ever-changing world. We acknowledge the link to other disciplines such as Mathematics, Science, Computing and Art.

A clear understanding of key substantive and disciplinary knowledge for Design & Technology ensures progression between year groups, and thus allows pupils to move forward in their learning and make necessary links in key concepts.

Knowledge in Design Technology:

Substantive knowledge concerns the key facts, concepts, principles and explanatory frameworks in a subject.

Disciplinary knowledge is needed in order to think, process and develop understanding with the subject.

At Birchington CE Primary School, substantive knowledge in Design & Technology is based on the knowledge of four key elements of the process of design: design, make, evaluate and gather technical knowledge. All of these elements are taught in all year groups:

Make	Know how to safely and carefully cut, join and finish a range of materials, ranging from paper to wood, using a variety of tools.
Evaluate	Know how to investigate, evaluate and analyse a range of products and their own designs based on specific criteria.
Technical	knowledge Know how to apply their knowledge of materials to meet the criteria above in the design, make and evaluate stages. Use technical vocabulary with confidence and accuracy.

Design Know how to design a product that is purposeful, functional and appealing to a specific group.

Disciplinary knowledge in Design & Technology is the process of enabling children to use their substantive knowledge of products and materials around them to make links between and across different areas of the curriculum. Knowledge in Design & Technology will equip the children with the opportunity to explain how and why products have changed over time and how they might be further improved in the future. They can use their knowledge and understanding to suggest how existing products may be improved with the advances in modern technology. They will show they have the problem-solving skills to become global citizens in an ever-changing and technologically advancing world.

Thus, throughout our curriculum pupils will be encouraged to think creatively to solve a problem, consider and answer questions, use tools safely, learn about designers and their designs, and evaluate their own learning.