

Design and Technology



Intent

At Grange Farm, our Design and Technology curriculum aims to inspire pupils to be creative, resourceful, and reflective problem-solvers who appreciate the process of design from concept to creation. We want pupils to develop curiosity and confidence when taking risks — designing, modelling, and testing ideas — while learning from mistakes and refining their work.

Through engaging and purposeful projects, pupils develop a clear understanding of the product design cycle: ideation, creation, and evaluation. They are encouraged to consider the impact of design and technology on daily life and the wider world, developing as innovative and enterprising citizens equipped to contribute to future design and technological advancements.

Our curriculum provides pupils with the knowledge and practical skills to design and make products that solve real and relevant problems, considering their own and others' needs, wants, and values. The scheme of work aligns fully with the National Curriculum for Design and Technology and ensures that by the end of each key stage, pupils have securely met all national expectations.

Implementation

Our curriculum follows the three key stages of the design process outlined in the National Curriculum — Design, Make, and Evaluate — underpinned by strong Technical Knowledge. At Grange Farm, these form the four core strands of our teaching and learning in Design and Technology.

We ensure pupils revisit six key areas throughout their time at Grange Farm, each building in complexity as pupils progress through the school:

1. Cooking and Nutrition
2. Mechanisms / Mechanical Systems
3. Structures
4. Textiles
5. Electrical Systems (KS2 only)
6. Digital World (KS2 only)

Each unit follows the design process and incorporates a specific theme drawn from the technical knowledge or cooking and nutrition elements of the curriculum. This spiral approach ensures that key skills and concepts are revisited, deepened, and applied in new and increasingly sophisticated contexts. This approach allows time for meaningful exploration, design development, and creation of final products. Lessons are practical, and engaging, ensuring pupils see the relevance of their learning to real-world contexts.

Impact

Our pupils will become confident and capable designers who can think critically, solve problems, and work both creatively and collaboratively. They will have developed a repertoire of technical skills and an understanding of the processes required to bring their ideas to life.

As a result of our D&T curriculum, pupils will:

- Understand the functional and aesthetic properties of a range of materials and resources.
- Know how to use and combine tools safely and effectively to shape, decorate, and construct products.
- Apply a broad repertoire of practical skills, technical knowledge, and creative understanding.
- Understand and apply the principles of nutrition, healthy eating, and safe food preparation.
- Recognise key individuals, inventions, and innovations that have shaped the designed world.
- Appreciate the impact of design and technology on society, the environment, and global sustainability.
- Evaluate and reflect thoughtfully on their work and that of others, identifying strengths and areas for improvement.

By the end of Key Stage 2, most pupils will confidently meet the National Curriculum expectations for Design and Technology. They will leave Grange Farm as imaginative, capable, and reflective learners — ready to apply their skills and understanding to future learning and to the world around them.