Design and Technology at Farthinghoe is an inspiring, rigorous and practical subject. Using creativity and imagination, our pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. As our pupils progress through school they acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. 'Banburyshire' is known as a logistics and distribution centre as well as being known for producing food and obviously the Motor Industry is a key employer, with many of our parents being employed by Mercedes and Prodrive. Our Curriculum reflects this.

Using Design and Technology our pupils at Farthinghoe learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High quality Design and Technology education at Farthinghoe will ultimately make an essential contribution to the creativity, culture, wealth and well-being of the nation. The use of our 3d printer is crucial to this subject as well as the Design Technology Studio at the Warriner School.

Our Design and Technology curriculum is designed to engage and interest our pupils by posing problems that are grounded in real life situations. We understand that our pupils learn best by applying the skills and knowledge they have been taught to solve a problem. The ongoing evaluation process is vital to understanding how and why a product or design element has been successful or not. The evidence from the evaluation process is then used to inform learning e.g. how to improve a product or to develop a technique.

In an ever changing world it is important that our pupils understand the need for sustainable products and that they have a firm knowledge of where ethically sourced materials come from and the environmental impact they have.

Our pupils benefit from the wide range of visits and experiences that show them how Design and Technology is interwoven into many different aspects whether it be how they make coffee in Banbury or exploring how Formula One cars have developed to form one of our key local industries.

Implementation

Through a variety of creative and practical activities, we teach the knowledge, understanding and skills needed to engage in an iterative process of designing and making. The children work in a range of relevant contexts (for example home, school, leisure, culture, enterprise, industry and the wider environment).

When designing and making, the children are taught to:

Design
• use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups
• generate, develop, model and communicate their ideas through discussion, annotated

sketches, cross-sectional diagrams, prototypes, pattern pieces and computer-aided design

Make

• select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing) accurately

• select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities

Evaluate

• investigate and analyse a range of existing products

• evaluate their ideas and products against their own design criteria and consider the views of others to improve their work

• understand how key events and individuals in design and technology have helped shape the world

Technical knowledge

• apply their understanding of how to strengthen, stiffen and reinforce more complex structures

• understand and use mechanical systems in their products

• understand and use electrical systems in their products

• apply their understanding of computing to program, monitor and control their products

Key skills and key knowledge for D and T have been mapped across the four year rolling Curriculum plan to ensure progression in mixed age year groups. This also ensures that there is a context for the children's work in Design and Technology; that they learn about real life structures and the purpose of specific examples, as well as developing their skills throughout the programme of study. Design and technology lessons are taught within a six week block, one hour per week, three terms a year.

Impact

We ensure the children

• 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 and 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. Children will design and make a range of products. A good quality finish will be expected in all design and activities made appropriate to the age and ability of the child. Work will be displayed and stored in our 'Learning Journey' files.

Children learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.