

Intent

Design and Technology is an inspiring and practical subject. Design and Technology encourages children to learn to think and adapt ideas creatively to solve problems both as individuals and as part of a team. At Chadsmoor Federation, we encourage children to be creative and use their imagination to design and make products that solve real and relevant problems within a variety of contexts. They will learn to consider their own and others' needs, wants and values.

We aim to, wherever possible, link work to other subjects such as mathematics, English, science, computing and art through our creative curriculum. The children are also given opportunities to evaluate their own and others designs, their uses and their effectiveness. We strive to encourage our pupils to become innovators and risk-takers.

Implementation

Through a variety of creative and practical activities, we teach the knowledge, understanding and skills needed to engage in an enjoyable and purposeful process of designing and making. The children work in a range of relevant contexts to express themselves and put into practice the knowledge they have gained as they travel through the different topics of our creative curriculum.

When designing and making, the children are taught to:

Design

- Collect and use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose and are aimed at relevant target audiences.
- Generate, develop, model and communicate their ideas through discussion, annotated sketches, prototypes, 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 and independently.
- 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 we live in.

Technical knowledge

- Apply their understanding of how to strengthen, stiffen and reinforce structures that are more complex.
- 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.

Impact

During topics that contain Design and Technology teachers are expected to assess the performance and progress of each child using DCPro to ensure no one is left behind and everyone is given the appropriate level of support.

To ensure high quality of teaching throughout all classes, exemplification of expected work is available across all year groups to ensure consistency in quality and expectations across the federation.

The subject leader will also visit Design and Technology lessons throughout the Federation to ensure teaching is of an expected quality and children's learning is being progressed effectively.

Children's voice surveys will empower the children and allow them to express their opinions of Design and Technology and offer suggestions of alternative projects they might like to visit.