

Design and Technology at The Mill Academy

Intent

At The Mill Academy, we provide a design and technology curriculum which allows children to exercise their creativity, imagination and build resilience through the designing and making process, to solve real problems within a variety of contexts. The children create a range of project that are underpinned by the key drivers of design and technology which are structure, mechanisms, electrical, textiles and food. This allows children to learn and use a range of different skills and knowledge. The children are taught to combine their designing and making skills with knowledge and understanding in order to design and make a product. Skills are taught progressively to ensure that all children are able to learn and practice in order to develop as they move through the school. Specific vocabulary in each area will provide challenge for the children. Evaluation is an integral part of the design process and allows children to adapt and improve their product, and are encouraged to become innovators and risk taskers. Where possible, D&T allows children to apply the knowledge and skills learned in other subjects, particularly Maths, Science and Art. Children's interests are captured through theme learning, ensuring that links are made in a cross curricular way, giving children motivation and meaning for their learning.

Implementation

Through a variety of creative and practical activities, we teach the knowledge, understanding and skills needed to engage in the process of designing and making.

When designing and making, the children are taught to:

Design

- 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

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

Through our Design and Technology Curriculum, 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.

Design & technology is monitored by the subject leader throughout the year in the form of book monitoring, photos and examples of work, lesson observations and pupil voice to discuss their learning and establish what children know and can remember once a unit of work has been completed.