Discovery Multi-Academy Trust

Design & Technology Curriculum Statement

Quote that guide us:
'Good buildings come from good people, and all problems are solved by good design.' Stephen Gardiner (British Architect)
'High-quality design and technology education makes an essential contribution to the creativity, culture, wealth, and well-being of the nation.' National Curriculum.

Why is it important to teach Design & Technology? (Intent)
Design and Technology is an inspiring, rigorous and practical subject. D&T should provide children with a real-life and relevant context for learning. As a Trust we support the promotion of STEM subjects, therefore we encourage children to use their inquiry, observation, creativity, problem-solving, flexibility, and collaboration skills to design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants, and values. Through the D&T curriculum, children should be inspired by engineers, designers, chefs, and architects to enable them to create a range of structures, mechanisms, textiles, electrical systems, and food products with a real-life purpose.

Key Concepts:

- Using creativity and imagination, 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.
- They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing, and art.
- Pupils 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.

Curriculum Design (Implementation)
Our D&T curriculum provides a clear and comprehensive document that will show progression of skills and vocabulary across all key stages within the strands of D&T. All teaching of D&T follows the design, make, and evaluate cycle. Each stage is rooted in technical knowledge. The design process is rooted in real-life, relevant context and linked with our topic to ensure meaning and purpose to the learning. While making, children are provided with choice of a range of tools to choose freely from. To evaluate, children evaluate their finished products against a design criterion. Each of these stages are given equal weight.

In KS1 this looks like:
Design

- design purposeful, functional, appealing products for themselves and other users based on design criteria
- generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology

Make

- select from and use a range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing).
- select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

Evaluate

- explore and evaluate a range of existing products
- evaluate their ideas and products against design criteria

In KS2 this looks like:

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 and exploded 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

Knowledge Focused

To ensure clear sequences of learning, key skills and key knowledge for D&T have been mapped across the Discovery MAT wide progression document, which is used to plan sequences of lessons. These give small steps that build towards key end points that link to the National Curriculum. These break down the National Curriculum statements into smaller steps. Key vocabulary is identified for each year group.

What we do well as a Trust (Impact)

As a MAT, we aim to create an inquisitive learning environment within our classrooms and reinforce the understanding that they are a supportive place to plan, implement and adapt ideas and learn. The study of D&T across the MAT allows our pupils to safely experience the wide range of skills and knowledge encompassed by this practical subject. All the D&T sequences have been planned and designed carefully to ensure they correlate with themes of learning and often have many cross-curricular links, particularly with History, Geography and

Science. As well as each sequence of lessons being purposeful, we ensure they are relevant and modern in many ways. STEM skills run through every aspect of D&T: inquiry, observation, creativity, problem-solving and collaboration. Therefore, we encourage children to become independent, reflective, creative critical thinkers, both as individuals and part of a team.