Intent, Implementation and Impact Statement for Design Technology (DT)

Curriculum Intent

Design and technology is an inspiring, rigorous and practical subject. Design and technology encourages children to learn to think and intervene creatively to solve problems both as individuals and as members of a team. At Highters Heath we encourage children to use their creativity and imagination, 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. We use Kapow which follows the National Curriculum objectives for design technology.

We aim to, wherever possible, link work to other subjects such as mathematics, science, computing, history, geography and art. The children are also given opportunities to reflect upon and evaluate past and present design technology, its uses and its effectiveness and are encouraged to become innovators and risk-takers.

Curriculum Implementation

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

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 design and technology have been mapped across the school to ensure progression between year groups. The context for the children's work in design and technology is also well considered and children 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 integrated within history and geography units.

Design technology is monitored through a variety of ways. Lesson drop-ins take place to ensure appropriate teaching and learning and that all children are engaged. Books, as well as displays, are regularly monitored to ensure learning has progressed and skills have been developed. We also set high expectations for staff when completing displays around school and in classrooms to ensure that work is celebrated and that children can feel proud of their achievements. At the end of each unit, we evaluate the teaching and learning carried out through discussions with children and staff. Staff have the opportunity to evaluate their practice, and which informs future planning and CPD.

Curriculum Impact

Teachers have higher expectations of children's work and quality evidence can be presented in a variety of ways, improving the overall quality of design and technology at Highters Heath. Children learn how to problem solve and take risks. This enables them to become 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. Children in school can speak confidently about their design and technology work as well as the skills they use.