

Design and Technology: Intent, Implementation and Impact (July 2020)

Intent

To build a Design Technology curriculum that meets the interests of all children and enables all children to develop their talents. At Bayford we aim to develop creative, curious learners who have the ability to embrace an ever-changing environment. Through the teaching of DT, we hope that children will develop the capacity to problem solve by stimulating creativity and imagination through the production of quality products that solve real and relevant problems within a variety of contexts, considering their own and others' needs. We aim to, wherever possible, link work to other disciplines such as Mathematics, English, Science, Computing and Art.

To teach a curriculum where, the appropriate subject knowledge, skills and understanding are taught as set out in the National Curriculum Design Technology Programmes of study, to fulfill the duties of the National Curriculum whereby schools must provide a balanced and broadly-based curriculum which promotes the spiritual, moral, cultural, mental and physical development of pupils and prepares them for the opportunities and responsibilities they will face in later life.

Implementation

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, as well as chopping and slicing) accurately.

- select from and use a wider range of materials, ingredients and components, including construction materials, textiles and ingredients, according to their functional properties, aesthetic qualities and, where appropriate, taste.

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
- Understand some of the ways that food can be processed and the effect of different cooking practices (including baking and grilling).

Key skills and key knowledge for DT 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 also taught as a block so that children's learning is focused throughout each unit of work.

Impact

We aim for children to express their creativity through designing, as they have been given the opportunity to carefully select tools and materials appropriate to the purpose and needs of an audience. Children will be self-critical learners who are confident to self-evaluate their final product, discussing its strengths and weaknesses and offering ways in which their work can be improved. They will gain the necessary skills for the future, by developing their ability to collaborate, investigate, design and evaluate. They will be fully equipped with the transferable skills needed to succeed in future work life.