

Design Technology Curriculum Statement

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 and to find a great deal of enjoyment in their learning. At Alverton Primary School, we encourage children to use their creativity and imagination and 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. The children are given opportunities to reflect upon and evaluate past and present design technology, its uses and its effectiveness and we aim, wherever possible, to link work to other disciplines such as mathematics, science, computing and art as part of our project-based approach to teaching and learning.

We believe that we have a responsibility to prepare our children for the future and part of this is knowing how to be healthy. Cooking is an essential life skill and, along with nutrition and healthy eating, forms an essential element of our DT curriculum and is included in most projects.

Implementation

Through creative and practical activities, we teach the knowledge, understanding and skills needed to engage in the process of designing and making. The children work in a range of relevant contexts.

When designing and making, the children are taught (in an age-appropriate and progressive way) 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 in a range of ways.

Make

- select from and use a range of tools and equipment to perform practical tasks accurately;
- select from and use a range of materials and components 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 build, strengthen, stiffen and reinforce 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.

Cooking and Nutrition

- cook and apply the principles of nutrition and healthy eating;

- understand and apply the basic principles of a healthy and varied diet to prepare and cook a variety of predominantly savoury dishes using an increasing range of cooking techniques;
- understand where food comes from and how ingredients are grown and produced.

In the EYFS, children have access to a wide range of resources to explore different materials and techniques in their Own Learning Time. Children are given the opportunity to explain and reason about their own efforts and those of other people through review sessions where the EYFS follows the whole school ethos of giving positive, constructive criticism designed to encourage children to reflect on what went well and what they could do to further improve.

Key skills and key knowledge for Design and Technology have been mapped across the school to ensure progression between phases. Our planning also ensures that there is a context for the children's work and that they learn about real life structures and the purpose of specific example, as well as developing their skills throughout the programme of study.

Impact

We ensure that our 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 prototypes and products for a wide range of users;
- critique, evaluate and test their ideas and products and the work of others;
- through learning how to cook and apply the principles of nutrition and healthy eating, create habits which can last into adulthood;
- design and make a range of products appropriate to their age and ability;
- learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens;
- develop an understanding the impact of design and technology on daily life and the wider world.

Some of our projects have included a strong DT outcome.

Lower Key Stage 2 – How Could We Survive?

Linking with Shelterbox and learning all about charities and how and why they help, the children raised money through an auction of upcycled and recycled things they had made to fundraise for the charity.

Upper Key Stage 2 – Are We Really What We Eat?

After finding out about food in blue zones where people live the longest, the children planned salads, carried out marked research and made salads to sell at our local farmers market.