

Design and Technology

Intent

At Greenfield Primary School, it is our intent that Design and Technology encourages children to learn to think and work creatively to solve problems both as individuals and as members of a team.

- We encourage children to use their imagination and to work creatively to design and make products that solve real and relevant problems within a variety of contexts; considering the purpose and the user.
- We aim to, wherever possible, link work to other disciplines such as mathematics, science, computing and art.
- Children have the opportunity to evaluate and reflect on their own work and the work of leading designers. They will consider use and effectiveness and will be encouraged to become innovators and risk-takers.

Implementation

We follow the Kapow Scheme of work for D and T, which ensures skills progression across the school. This is supported by high quality videos of experts modelling skills, working with tools and demonstrating helpful tips such as assembling a mechanism.

Pupils will consider the use and purpose of their products:

They will be designing:

- Something for Somebody for Some Purpose. This learning will be underpinned by the following principles;
- User – who are the products for? Who will use this product?
- Purpose – what tasks or function will the product perform?
- Functionality – how are the products going to work?
- Design decisions– students will be given the opportunity to make their own choices and learn from/through making mistakes, as they are part of the process.
- Innovation – children will be encouraged to try things that are different.
- Authenticity – how believable/real will the product be to the children and the end user?

All teaching of D&T follows the design, make and evaluate cycle. Each stage is rooted in technical knowledge.

Skills are taught progressively to ensure that all children are able to develop as they move through the school.

The design process is rooted in real life, contexts to give meaning and relevance to learning. The children are taught to combine their designing and making skills with knowledge and

understanding, in order to design and make a product. Pupils use design criteria to design for a purpose and communicate their ideas through a range of mediums.

Children learn to use a wide range of tools and equipment with safety and accuracy. They use a variety of materials and select components according to their qualities.

Evaluation is an integral part of the design process and allows children to adapt and improve their product, reflecting on positives, negatives and areas to improve. This is a key skill which they need throughout their life.

Where possible, our D&T teaching links to other areas of the curriculum, enabling pupils to deepen their knowledge. Our D&T curriculum develops and builds on the knowledge and skills learned in other subjects, particularly Maths, Science and Art.

Children will learn about food preparation, nutrition and hygiene. They will develop an awareness of seasonality and where their food comes from. They will design and make simple dishes, adapting recipes and cooking dishes for a range of purposes to include meat-free options.

Impact

By the time children leave our school they will have developed:

- An excellent attitude to learning and independent working.
- The ability to use time efficiently and work constructively and productively with others.
- The ability to carry out thorough research, show initiative and ask questions to develop an exceptionally detailed knowledge of users' needs.
- The ability to act as responsible designers and makers, working ethically, using materials carefully and working safely.
- A thorough knowledge of which tools, equipment and materials to use to make their products.
- An understanding of basic food hygiene, seasonality and sustainability, alongside the ability to prepare dishes.

Children's learning is evidenced in a Design & Technology / Art book. Investigative activities, focused tasks and work relating to design, making and evaluation is recorded here.

Books are monitored by the subject leader and head teacher each term. Pupils are interviewed about their learning and understanding of each topic. We also make time for children to revisit the work in a topic after time has passed, in order to focus on what they have retained and to give reminders of key vocabulary and working models, to further embed the learning.

The information we gather during projects about the performance of individual children and groups enables us to provide carefully tailored feedback, questioning, explanation and support, according to individual needs.