

The Intent of our Design and Technology Curriculum

Design and technology is an intricate part of our day to day lives and it is therefore important that our children are taught how this subject is of great importance in our rapidly changing world. Children are encouraged to think creatively in order to solve problems and make improvements to existing ideas and products. It is through these methods that they can make positive changes to their own and others' lives.

The teaching of Design and technology enables children to identify needs and opportunities, and to respond by developing ideas and eventually make products and systems. Through the study of design and technology, they combine practical skills with an understanding of aesthetic, social and environmental issues, as well as of functions and industrial practices. This allows them to reflect on and evaluate present and past design and technology, its uses and impacts.

Design and technology gives the children the opportunity to work and think both as individuals and as part of a team, which helps them develop and learn while demonstrating the key values of our school.

Design and technology offers opportunities for children to:

- take part in creative and practical activities;
- understand the importance of design and technology in the wider world;
- develop imaginative thinking and enable them to talk about what they like and dislike when designing and making things;
- talk about how things work, and to draw and model their ideas;
- be analytical and critical when they are considering and analysing products;
- select appropriate materials, tools and techniques for making a product;
- follow safe procedures when using equipment;
- explore attitudes towards the 'made' world and how we live and work within it;
- develop an understanding of technological processes and products, their manufacture and their contribution to society;
- foster enjoyment, satisfaction and purpose in designing and making things.

Design and technology prepares pupils to participate in tomorrow's rapidly changing technologies. They learn to think and intervene creatively to improve quality of life. The subject calls for pupils to become autonomous and creative problem solvers, as individuals and members of a team. They must look for needs, wants and opportunities and respond to them by developing a range of ideas and making products and systems. They combine practical skills with an understanding of aesthetics, social and environmental issues, function and industrial practices. As they do so, they reflect on and evaluate present and past design and technology, its uses and effects. Through design and technology, all pupils can become discriminating and informed users of products, and become innovators.

The Implementation of our Design and Technology Curriculum

In EYFS, children explore the world and develop their understanding of how different aspects of the world work. They select and use appropriate tools and resources to accomplish tasks and complete goals and work collaboratively to achieve more. We encourage the development of skills, knowledge and understanding that help reception children make sense of their world as an integral part of their school experience. We relate this development to the objectives set out in the Early Learning Goals. This learning forms the foundations for later work in design and technology. These early experiences include asking questions about how things work, investigating and using a variety of construction kits, materials, tools and products, developing making skills and handling appropriate tools and construction materials safely and with increasing control. Work is often linked to the children's interests and provides an enabling environment offering a range of experiences that encourage exploration, observation, problem solving, critical thinking and discussion.

Design and technology in KS1 and KS2 link to our topic based curriculum, providing real world opportunities. It may be taught weekly or in a block series of lessons depending on the teacher's choice. Research and evaluation into the product being created is often the starting point to enable children to experience finished products linked to their project. Designs are made with the end goal in mind, using findings from their research. Focused practical tasks are used when needed to develop and practise particular skills and acquire knowledge before moving onto a larger project piece. Children are then supported with the evaluation of their model, relating it back to their original design. Opportunities are given, where appropriate, for individual work and collaborative projects.

During Key Stage 1, pupils learn how to think imaginatively and talk about what they like and dislike when designing and making. They build on their early childhood experiences of investigating objects around them. They explore how familiar things work and talk about, draw and model their ideas. They learn how to design and make safely and start to use ICT as part of their designing and making.

During Key Stage 2 pupils will work on their own and as part of a team on a range of designing and making activities. They think about what products are used for and the needs of the people who use them. They plan strategically what must be done and identify what works well and what could be improved in their own and other people's designs. They draw on knowledge and understanding from other areas of the curriculum and use computers in a range of ways. Their products are of a high standard and fit for purpose.

Meaningful assignments set within familiar contexts are used by class teachers. Where appropriate they are linked to other subjects.

As teachers we consider:

- Design and technology opportunities arising within the curriculum and how they can link with other subject areas and bodies of knowledge made relevant to today;
- How we present the teaching of new skills to the children, i.e. group based, class taught or at an individual level;
- The role of design and technology in the teaching and learning process throughout the curriculum;
- How to encourage children to produce quality work that they are proud of;
- How to encourage the safe, economic and appropriate use of materials, tools and equipment;

It is important to us that the tasks presented to pupils help them make progress in DT. The sequence of tasks and assignments are laid out so that clear progress is made by all children.

Pupils are given opportunities to:

- Research and record relevant information where appropriate to meet a need/brief.
- Develop realistic outcomes to assignments.
- Take increasing responsibility for their own work.
- Critically evaluate their work and the work of others and suggest improvements.
- Work individually and in teams, groups, partners or pairs.
- Work with a range of materials and to use them appropriately.
- Use a variety of tools safely and correctly.
- Communicate ideas in a variety of ways.
- Develop skills and apply knowledge and experience when working on an assignment.
- Develop the ability to solve problems.
- Examine and evaluate design features in simple products including their historical development.

The Impact of our Design and Technology Curriculum

Teacher assessment is used to inform future planning and to review children's capability. Design and technology assignments are used throughout the key stages to assist with formative and summative assessment. Children are encouraged to make oral and written evaluations of their work in technology throughout the key stages. Children use their art and design technology books to plan, record, assess and evaluate their work. Photographs are taken as evidence and stuck in their book.

At the end of a unit of work teachers make a judgment using the school's assessment materials (Klips) which are linked to the National Curriculum levels of attainment. Children will be assessed on whether they are entering, developing or secure against these key objectives and skills so that they can be developed the next time they revisit the area of the subject. Teachers then use this to plan future work and to make an annual assessment of progress for each child, as part of the annual report to parents. This information is passed on to the next teachers.