Our Design Technology vision

Our GEM threads

Values: Our children will adopt and celebrate the schools GEM powers
Knowledge: Our children will learn an enriched and ambitious curriculum
Progression: Our children will 'do more, know more and remember more'
Language and vocabulary: Our children will use oracy to be confident communicators
Experience rich: Our children will receive culturally diverse opportunities to thrive.

Why is it important to teach Design Technology?

Design and Technology should be as riveting and relevant as the career it channels into. Logical, creative and practical, it's the only opportunity that school students have to apply what they learn in Maths and science – directly preparing them for a future in engineering."
James Dyson - Inventor

Pupil Voice

"I like it because we have a set success criteria and we design something to meet it. You need to improve if you don't meet it." (Year 6 Pupil)
"I like DT because you can recreate things that you've seen before." (Year 5 Pupil)
"We make things. We decide what we need then we try to make it better." (Year2 pupil)

Intent

Design and technology is an inspiring, rigorous and practical subject. We want pupils to experience the enjoyment of Design and Technology and develop a sense of curiosity about the subject. We foster positive 'can-do' attitudes, believe all children can achieve and aim to provide all children with a broad and balanced curriculum which prepares them for life beyond primary education.

Through encouragement 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 actively encourage our children to be critical thinkers, forward planners and effective problem solvers. We also teach our children to be able to work as capable individuals and as part of a valuable, productive team. Resilience is a key theme running through our DT curriculum, and the children are encouraged to become innovators and risk takers.

In Design and Technology we aim for all pupils to:

- develop imaginative thinking in children and to enable them to talk about what they like and dislike when designing and making
- talk about how things work, and to draw and model their ideas;
- select appropriate tools and techniques for making a product, whilst following safe procedures;
- explore attitudes towards the made world and how we live and work within it;
- develop an understanding of technological processes, products, and their manufacture, and their contribution to our society;
- foster enjoyment, satisfaction and purpose in designing and making.

Implementation

Knowledge and skills-based implementation:
In the Foundation Stage, Design and Technology is taught through carefully planned adult-focused activities, alongside a continuous provision approach based upon the relevant Early Learning Goals (EYFS) they undertake investigative and skills-based tasks during continuous provision. They will be provided with resources based on topics within the focus of the classroom and will be encouraged to design and develop ideas independently. In Years 1 – 6, through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment]. When designing and making, pupils should be taught to design, make, evaluate and learn technical knowledge.

Progression led implementation:
As children move from EYFS through KS1 and KS2, they will have opportunities to gain a broader experience in design and evaluation. By the end of KS1, Children will learn to design purposeful products and make products that can be used by themselves and others, as well as learn to evaluate against already designed products and their own ideas. By the end of KS2, children will need to use research and develop design criteria for functional, appealing products and share their ideas through discussion. They will use a range of tools and equipment to perform practical tasks and use a wider range of materials and components. Once they have completed products against their own design criteria they will need to be able to evaluate their own ideas and consider the voice of others to improve their work.

Language and Vocabulary rich implementation:
Within our Design and technology teaching, children will use Oracy to be confident communicators. They will talk about and discuss products and their purpose using everyday language related to their technical knowledge. They will ask and answer questions about relevant products and use a range of technical terminology to communicate with others.

Experience rich implementation:
Many design and technology topics are introduced with a launch activity which may include an introduction to different products, where children are able to manipulate and explore how they work; this will help to engage the children in the topic. Teachers plan lessons that are practical and collaborative and incorporate many cross-curricular skills such as drawing and oracy.

Impact

Each term the subject leaders meet several times to discuss the learning being undertaken and progress made throughout the school. During the year, they scrutinize planning, carry out learning walks, book looks and pupil conferences and report to the Senior Leadership Team and class teachers.

At the end of each term, teachers assess individual children's progress against the appropriate National Curriculum statements for the aspects that have been taught.

Our children, using our Gem Threads, will receive a high-quality Design Technology curriculum that will enable them to be confident, articulate learners about the world around them and the people that live in it.

Our Design Technology curriculum in the Infants

Safely use and explore a variety of materials, tools and techniques

Create collaboratively, sharing ideas, resources and skills

Make healthy choices about food and drink

Design and make – Freestanding Structures

Design and make – Mechanisms – sliders & levers

Design and make – Mechanisms- wheels & axles

Design and make- Textiles – templates & joining

Food and nutrition– savoury fruit/ veg

Food and nutrition – savoury fruit and veg based

EYFS

Year 1

Year 2

Our Design Technology curriculum in the Juniors

Design and make project - Structures

Design and make- Mechanisms – levers & linkages

Food and nutrition – sweet option

Design and make– Electrical systems- circuits & switches

Design and make-Textiles – 2D shape to 3D product

Food and nutrition - Bread

Design and make- Frame Structures

Design and make – Electrical control

Food and nutrition – Cultural or seasonal

Design and make– Mechanical systems - cams

Design and make-Textiles - Combining fabric shapes

Design and make – pulleys & gears

Year 3   Year 4   Year 5   Year 6