Oak CE Primary School

Design Technology Curriculum Overview

<u>Vision</u>

Our aim at Oak CE Primary School is to make Design Technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on other subjects such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, become resourceful and learn how to use their own initiative. Through evaluation they develop a critical understanding of its impact in daily life and in the wider world. High-quality Design Technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

Our curriculum is constructed upon the fundamental principles outlined in the EYFS Framework and the National Curriculum.

We teach our children to:

1. Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
2. Build and apply a range of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users.
3. Critique, evaluate and test their ideas and products and the work of others understand and apply the principles of nutrition and learn how to cook.

<u>Teaching and Learning</u>

Design Technology is taught during the second half of each half-term, with lessons lasting between one and one and a half hours per week for both Key Stage 1 and Key Stage 2. The sequencing of learning follows a structured progression, where skills are explicitly taught through the stages of design, making and evaluation. This sequence is designed to gradually develop children's knowledge and skills in a way that is age-appropriate, logical, and systematic.

At every stage, children are provided with the technical knowledge needed, along with opportunities to explore and work with mechanisms. Each lesson builds on the previous one, leading to the practical creation of the final product. There are some differences between the approach Design Technology across both Key Stages. In Early Years children are able to explore, design and make throughout all subjects and in continuous provision. They are encouraged to use different resources and work out things they can change, constantly evaluating with adult questioning and time to adapt.

In Key Stage One, children design a functional product themselves and communicate ideas through talking, drawing and templates. They then make their design using a range of tools practically, which is followed by the final stage of evaluating ideas against their design criteria. In Key Stage Two children design a functional, appealing product that is fit for purpose. They communicate ideas through discussion, annotated designs, pattern pieces and computer aided design. To make the children use a wider range of tools and equipment to create their practical tasks, they will use a wide range of materials and textiles according to their functional properties. Children evaluate against their own design criteria and consider views of others of how to improve their work.

At Oak Primary, we follow a cumulative approach, where key concepts are revisited and expanded upon in each year group. Having implemented the scheme last year, we are now focused on building further upon the foundations laid previously. We currently follow the Kapow curriculum to support our planning, sequence of learning and progression. It has supported teachers with their subject knowledge along with key videos and explicit ways to model. The curriculum supports real life experiences and understanding of how the world works.

At Oak our sequence of learning is developed so that the skills and knowledge of DT are taught simultaneously across all year groups. This enables the processes of the DT sessions to be impactful following clear Design, Make and Evaluate whilst progressing in skills and knowledge. Providing the commonality necessary for leaders to offer strategic improvements to subject knowledge, pedagogical approach, differentiation and inclusion, and ambitious standards of teaching and learning.

We have identified the following four purposes for DT:

Early Years Foundation Stage

In the Early Years Foundation Stage (EYFS), Design Technology involves babies and toddlers exploring a variety of materials, using all their senses to investigate them. Children are encouraged to manipulate and play with different materials, using their imagination to think about what they can create. They also make simple models to express their ideas.

For children aged 3 to 4 years in Nursery, they will have the opportunity to freely explore different materials, developing their ideas on how to use them and what to make. They will decide which materials to use to express their ideas, experimenting with joining materials and exploring various textures.

This exploration lays the foundation for the National Curriculum by providing children with key skills and the time to experiment with materials and use their imagination to create. Basic concepts are introduced, alongside key vocabulary, to prepare them for future work in Design Technology. Through this process, children begin to develop problem-solving skills and an understanding of what works well and what does not, fostering their creativity and critical thinking.

Inclusion

At Oak Primary, Design Technology is very inclusive for all children. Everybody is taught the same skills and concepts however, these can be adapted to meet the needs of each child. For example, different needles, materials and resources could be used. Children can take part and may need to access the skills and knowledge of a different year group to support their learning. InPrint software is used to produce adapted resources, in addition smaller groups are made for more adult support that may be needed in some cases. Different support will be given where it is required and children will complete work at their own pace and to their own ability. Each child will always design, make and evaluate.

Assessment

Design Technology is evaluated against the objectives at the end of each unit. Teachers conduct ongoing assessments to identify areas where additional support is required. Data is inputted into a spreadsheet termly to gauge whether a child is below (B), working towards (WT), working at (AT) or greater depth (GD) in each unit. This data is then analysed to find where the areas for development are and what can be done.