



The Intent, Implementation and Impact of our Curriculum – DT

Intent

At St John's Primary School, Design and 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. DT gives pupils a broad range of subject knowledge and allows them to draw upon disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. DT education helps pupils to evaluate the designs of themselves and others, ensuring they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

We intend on delivering a curriculum which:

- 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 high-quality prototypes and products for a wide range of users.
- 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.

Implementation

At St. John's, we follow the PlanBee Primary Design and Technology scheme which has clear progression of learning throughout KS1 and KS2, as well as relevant cross-curricular opportunities. This scheme of work is authored by primary Design and Technology specialists which is easily adaptable to every classes teaching needs, time and resources.

The Design and technology National Curriculum outlines the three main stages of the design process: design, make and evaluate. Each PlanBee Primary unit follows these stages, to form a full project. Each stage of the design process is underpinned by technical knowledge which encompasses the contextual, historical and technical understanding, required for each strand.

Cooking and nutrition has a separate section in the D&T National Curriculum, with additional focus on specific principles, skills and techniques in food, including where food comes from, diet and seasonality. Food units still follow the design process summarised above.

The scheme of work has been designed as a spiral curriculum with the following key principles in mind:



- Cyclical: Pupils return to the key strands again and again during their time in primary school.
- Increasing depth: Each time the key strand is revisited it is covered with greater complexity.
- Prior knowledge: Upon returning to each key strand, prior knowledge is utilised so pupils can build upon previous foundations, rather than starting again.

Impact

Each unit of lessons is monitored through assessment. By the end of each year, pupils should have been taught the knowledge, understanding and skills needed to engage in an interactive process of designing and making through a variety of creative and practical activities. They should have worked in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment].

If implementation has the desired impact of the intent:

- Pupils will be able to 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.
- Pupils will be able to generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.
- Pupils will be able to select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately.
- Pupils will be able to select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.
- Pupils will be able to investigate and analyse a range of existing products.
- Pupils will be able to evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.
- Pupils will be able to understand how key events and individuals in design and technology have helped shape the world.
- Pupils will be able to apply their understanding of how to strengthen, stiffen and reinforce more complex structures.
- Pupils will be able to understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].
- Pupils will be able to understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors].
- Pupils will be able to apply their understanding of computing to program, monitor and control their products.
- Pupils will be able to understand and apply the principles of a healthy and varied diet.



- Pupils will be able to prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.
- Pupils will be able to understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.