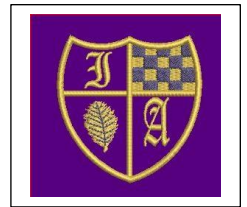


Design Technology Curriculum

Intent, Implementation and Impact



Intent	Implementation	Impact
<p>Our Design and Technology curriculum intends to develop children’s academic and practical skills by encouraging them to solve problems based on initial exploration of designers and their products, leading to solving problems based on real life contexts. Lessons give children the opportunity to reflect on what they have learned through their practical exploration and encourages them to use this knowledge to design and make their own product. It aims to encourage children to take risks, to develop new innovative designs and to be reflective learners by giving them opportunities to evaluate their own work, as well as the design and work of others.</p>	<p>EYFS</p> <p>Expressive Arts and Design <u>Creating with Materials ELG</u> Children at the expected level of development will:</p> <ul style="list-style-type: none"> • Safely use and explore a variety of materials, tools, and techniques, experimenting with colour, design, texture, form, and function • Share their creations, explaining the process they have used • Make use of props and materials when role playing characters in narratives and stories. <p><u>Being Imaginative and Expressive ELG</u> Children at the expected level of development will:</p> <ul style="list-style-type: none"> • Invent, adapt, and recount narratives and stories with peers and their teacher • Sing a range of well-known nursery rhymes and songs • Perform songs, rhymes, poems, and stories with others, and – when appropriate try to move in time with music. <p>Key stage 1 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:</p> <p>Design</p> <ul style="list-style-type: none"> ▪ design purposeful, functional, appealing products for themselves and other users based on design criteria ▪ generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology <p>Make</p> <ul style="list-style-type: none"> ▪ select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] ▪ select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics <p>Evaluate</p>	<p>Our DT Curriculum is high quality, well thought out and is planned to demonstrate progression. In addition, we measure the impact of our curriculum through the following methods: A reflection on standards achieved against the planned outcomes; Regular celebrations of learning which demonstrate progression across the school; Pupil discussions about their learning; which includes discussion of their thoughts, ideas, processing, and evaluations of work.</p>

Children are given time to test their own products and make adjustments which enable them to change their designs and improve their end product, enabling them to become evaluative learners.

- explore and evaluate a range of existing products
- evaluate their ideas and products against design criteria

Technical knowledge

- build structures, exploring how they can be made stronger, stiffer, and more stable
- explore and use mechanisms [for example, levers, sliders, wheels, and axles], in their products.

Cooking and nutrition

As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.

Pupils should be taught to:

Key stage 1

- use the basic principles of a healthy and varied diet to prepare dishes
- understand where food comes from.

Key stage 2

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, school, leisure, culture, enterprise, industry, and the wider environment].

When designing and making, pupils should be taught to:

Design

- use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at individuals or groups
- generate, develop, model, and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

Make

- select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining, and finishing], accurately
- 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

Evaluate

- investigate and analyse a range of existing products
- evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
- understand how key events and individuals in design and technology have helped shape the world

Technical knowledge

- apply their understanding of how to strengthen, stiffen and reinforce more complex structures

- understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers, and linkages]
- understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers, and motors]
- apply their understanding of computing to program, monitor and control their products.

Cooking and nutrition

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Pupils should be taught to:

Key stage 2

- understand and apply the principles of a healthy and varied diet
- prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques
- understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.