







Stowford School

Curriculum Statement for Design and Technology



Intent:

The Stowford Curriculum for design and technology aims to ensure that all children:

-  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:

Following the Stowford Curriculum children learn the following:

Key stage 1: Through a variety of creative and practical activities, children are taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They 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, children are taught to:

Design: design purposeful, functional, appealing products for themselves and other users based on design criteria and generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology

Make: select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] and select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

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

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

Key stage 2:

Through a variety of creative and practical activities, children 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 When designing and making, children 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 particular individuals or groups and 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 and 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 and 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] and apply their understanding of computing to program, monitor and control their products.

Cooking and nutrition: As part of their work with food, children are taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in children 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 children to feed themselves and others affordably and well, now and in later life. Children are taught to:

Key stage 1: use the basic principles of a healthy and varied diet to prepare dishes and understand where food comes from.

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 and understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

The DT subject leader keeps up to date and develops subject knowledge for themselves and for staff. A whole schools view is gained by ensuring continuity and progression of skills. Through monitoring, the subject leader focuses on children learning and progress. This is based on learning walks, discussion with pupils and staff, looking at books and professional discussions. This then becomes linked to CPD and opportunities to share good practice.

The DT curriculum provides a rich experience for all children in which they can develop skills to explore, access knowledge and make connections across all learning.

Assessment: is based on the child's final product which gives opportunity for them to show what they have learnt and understood.



Impact:

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, children 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 disciplines such as mathematics, science, engineering, computing and DT. Children learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, 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.