Design and Technology

Curriculum Intent

Design & Technology is an inspiring, rigorous and practical subject. Design & Technology encourages children to learn to think and intervene creatively to solve problems, both as individuals and as members of a team. It requires children to be active learners with the confidence to 'have a go,' and the resilience to persist with a project when challenges occur.

It is the intent of Fairfields Primary School & Nursery, for Design & Technology to be taught in all year groups through at least one topic per term. Design & Technology projects are often made cross-curricular, linking to other subjects taught. This enables pupils to make connections and links with their learning.

The Design & Technology curriculum combines skills, knowledge, concepts and values to enable children to tackle projects, which can involve solving problems. It can improve critical analysis, problem solving, and practical capability and evaluation skills. Through the teaching of this subject, pupils combine their practical skills with an understanding of aesthetic, social and environmental issues, and knowledge of past and present technology. This allows them to review and evaluate the uses and impacts of different technology.

Our aims for the Design & Technology curriculum are:

- to encourage pupils to become innovators and risk takers when designing and making;
- products are to be made with a purpose;
- individuality should be ensured in pupil's design and construct of products through imaginative thinking;
- to encourage children to select appropriate tools and techniques for making a product, whilst following safe procedures;
- to enable children to talk about how things work and to draw and model their ideas;
- to use computing and coding for products in Key Stage 2;
- to research and draw upon key events and individual designers within design and construction in Key Stage 2;
- to teach the importance of making on-going changes and improvements during making stages;
- to deliver Design & Technology through the National Curriculum objectives for Design & Technology for Key Stage 1 and Key Stage 2 and through the Early Learning Goals for the Early Years Foundation Stage.

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Curriculum Implementation

Design & Technology are an important part of learning and it is for this reason that we, as a school, are dedicated to the teaching and delivery of a high-quality Design & Technology curriculum through well planned and resourced lessons.

During the EYFS, the teaching of Design & Technology allows pupils to explore and use a variety of media and materials through a combination of child initiated and adult directed activities. They have the opportunities to learn to:

- use different media and materials to express their own ideas;
- use what they have learnt about media and materials in original ways, thinking about form, function and purpose;
- make plans and construct with a purpose in mind using a variety of resources;
- develop skills to use simple tools and techniques appropriately, effectively and safely;
- select appropriate resources for a product and adapt their work where necessary;
- cook and prepare food adhering to good health and hygiene routines.

In Key Stage 1 and 2, the teaching of Design & Technology follows the Plan Bee scheme of work and the National Curriculum. Teachers also consider the progression of skills within their planning to ensure that the National Curriculum objectives are being met. Each year group has their own projects that may link with the topics being taught. This enables Design & Technology to be very cross-curricular, drawing upon knowledge and skills within English, Mathematics, Science, History, Computing and Art. Pupils design products with a purpose and an intended user of the products. They then make these products using a range of materials and tools, solving any problems they encounter along the way. Pupils are also given opportunities to evaluate their products, thinking about what went well and what could be improved upon. Pupils learn to take risks, be reflective, innovative, enterprising and resilient. They can reflect upon the impact of Design & Technology on everyday life and the wider world.

SEND: Lessons are adapted appropriately to meet the needs of all pupils and ensure an inclusive curriculum. Some of these adaptations may include: differentiated activities, adult support and mixed ability seating, as well as adaptations to make lessons accessible for all.

On the following page is an overview of what Design & Technology units pupils will cover across the year in each year group, in Key Stage 1 and 2.

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Term	Year Group	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn		Stable Structures  (Structures)	Making Fire Engines  (Mechanisms)	Seasonal Food  (Cooking and Nutrition)	Light-Up Signs  (Electrical)	Funky Furnishings  (Textiles)	Shelters  (Structures)
Spring		Moving Minibeasts  (Mechanisms)	Perfect Pizzas  (Cooking and Nutrition)	Moving Monsters  (Mechanisms)	Storybooks  (Mechanisms)	Moving Toys  (Mechanisms)	Programming Pioneers  (Programming)
Summer		Teddy Bear's Picnic  (Cooking and Nutrition)	Puppets  (Textiles)	Making Mini-Greenhouses  (Structures)	Pencil Cases  (Textiles)	Great British Dishes  (Cooking and Nutrition)	Electric Cars  (Electrical)

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Curriculum Impact

Through our teaching of the Design & Technology curriculum, we want to make pupils confident in their own abilities to solve problems using a variety of designs, materials, tools, skills and knowledge. Pupils should leave Fairfields Primary School & Nursery being innovative, creative and confident in their design and making processes, gaining enjoyment and satisfaction from their work.

Assessment of pupils' learning in Design and Technology is an ongoing monitoring of pupils' understanding, knowledge and skills by the class teacher, throughout lessons. This assessment in then used to inform differentiation, support and challenge required by the pupils. Teachers assess pupils alongside the Plan Bee assessment grids, the progression of skills and the National Curriculum objectives, making judgements on whether pupils are pre-key stage, working towards expected, at expected or above expected levels for their year group.

Design and Technology is also monitored by the subject leader throughout the year in the form of lesson observations, evidence of pupils' work and pupil discussions to understand their thoughts on their learning and understanding, to help establish the impact of the teaching taking place.