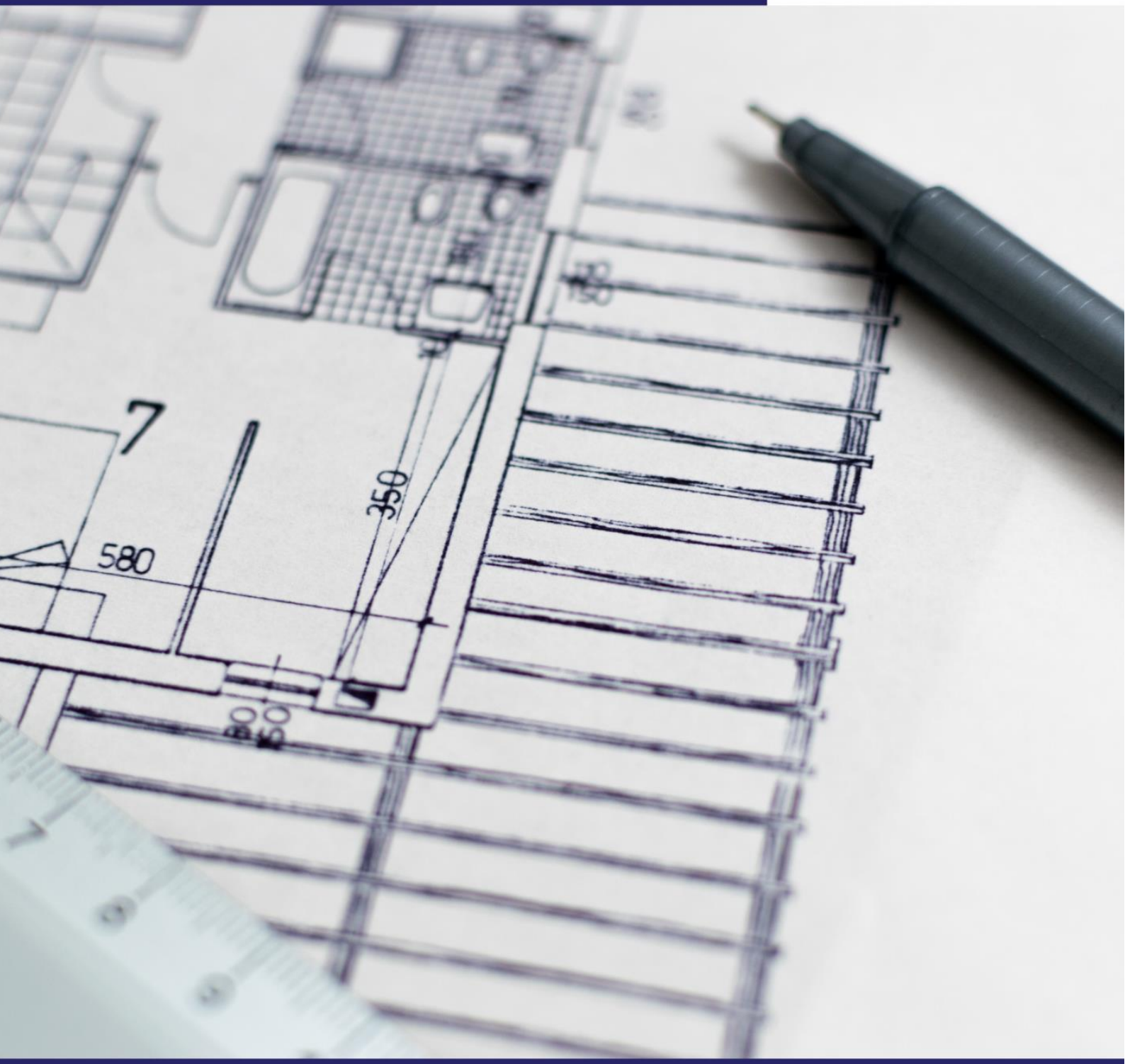
D&T

THE FOXTON CURRICULUM

Foxton Primary School

2025/26



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Good buildings come from good people, and all problems are solved by good design
– Stephen Gardiner

At Foxton Primary School, we are designers.

Our Design & Technology Curriculum

At Foxton Primary School, our Design and Technology (D&T) curriculum is built upon a comprehensive and progressive framework that ensures the development of critical skills and knowledge. We have adopted the Kapow Primary scheme of work, which aligns with the National Curriculum and supports our vision of nurturing innovative thinkers and problem-solvers.

The Kapow Primary scheme is organised into a two-year cycle to accommodate mixed-age classes. This structure allows us to cover the KS1 and KS2 National Curriculum objectives effectively, ensuring that all pupils engage with the essential elements of D&T.

Key Areas of Focus:

1. **Mechanisms / Mechanical Systems**
2. **Textiles**
3. **Structures**
4. **Cooking and Nutrition**
5. **Electrical Systems (KS2 only)**
6. **Digital World (KS2 only)**

Each area is revisited annually, with increasing complexity, to build upon prior knowledge and deepen understanding. The spiral curriculum design ensures that students revisit key concepts, allowing for reinforcement and progression in learning.

The Design Process

Our D&T curriculum follows the three main stages of the design process: design, make, and evaluate. Each unit within the Kapow Primary scheme incorporates these stages, underpinned by the necessary technical knowledge. This approach ensures a thorough understanding of the contextual, historical, and technical aspects of each project.

- **Design:** Pupils engage in research, idea generation, and the development of design criteria tailored to specific users and purposes.
- **Make:** Pupils select appropriate tools and materials, carry out practical tasks with precision, and follow health and safety guidelines.
- **Evaluate:** Pupils critique and test their products against design criteria, consider feedback, and make improvements.

We provide a detailed progression of skills and knowledge document, which outlines the development of key competencies across each year group and strand. This document ensures that teachers are aware of what has been taught previously and what will be covered in future lessons, enabling a seamless transition and continuity in learning.

In Fox Cubs, children begin to develop their understanding of design and technology. Through the safe use of scissors, paintbrushes, playdough modelling tools and construction, children learn 'the best tools for the job'. Throughout the year, children also have access to a well-resourced creative area where they design and make their own models. Other projects include designing Christmas decorations using natural materials as well as making junk modelled vehicles. In Key Stage 1 and 2, staff use a knowledge planner to map out in granular detail the key technical knowledge and understanding needed to deliver each unit of the Kapow scheme successfully. This document also helps teachers to understand what

has been taught previously and how their lessons build on prior learning as well as create the foundations for what comes next.

Design & Technology Overview

Cycle A				Cycle B		
Year 1/2	Year 3/4	Year 5/6		Year 1/2	Year 3/4	Year 5/6
Mechanisms: Making a moving story book (4 lessons)	Mechanical systems: Pneumatic toys (4 lessons)	Textiles: Stuffed Toys (4 lessons)	Autumn 1	Balanced diet (6 lessons)	Mechanical systems: Making a slingshot car (4 lessons)	Textiles: Waistcoats (4 lessons)
Structures: Constructing a windmill (4 lessons)	Digital world: Wearable technology (6 lessons)	Electrical systems: Doodlers (4 lessons)	Autumn 2	Mechanisms: Making a moving monster (4 lessons)	Digital world: Mindful moments timer (6 lessons)	Electrical systems: Steady hand game (4 lessons)
Textiles: Puppets (4 lessons)	Eating seasonally (6 lessons)	Structures: Bridges (4 lessons)	Spring 1	Structures: Baby bear's chair (4 lessons)	Adapting a recipe (6 lessons)	Structure: Playgrounds (4 lessons)
Mechanisms: Wheels and axles (4 lessons)	Structures: Constructing a castle (4 lessons)	Digital world: Monitoring devices (4 lessons)	Spring 2	Textiles: Pouches (4 lessons)	Structures: Pavilions (4 lessons)	Digital world: Navigating the world (5 lessons) NB. Lesson 5 could be an assembly opportunity
Smoothies (6 lessons)	Cross stitch and appliqué Textiles: Cushions or Egyptian collars (4 lessons)	Developing a recipe (6 lessons)	Summer 1	Mechanisms: Fairground wheel (4 lessons)	Textiles: Fastenings (4 lessons)	Come dine with me (6 lessons)
Use this time to: ★ Extend projects ★ Attend trips ★ Celebrate (gallery) ★ Set challenges	Electrical systems: Electric poster (4 lessons)	Mechanical systems: Making a pop-up book (4 lessons)	Summer 2	Use this time to: ★ Extend projects ★ Attend trips ★ Celebrate (gallery) ★ Set challenges	Electrical systems: Torches (4 lessons)	Mechanical systems: Automata toys (4 lessons)

Knowing more and remembering more

Every DT lesson begins with retrieval practice to combat the forgetting curve. This process helps pupils recall recent learning and strengthen connections with recurring concepts such as textiles, structures, and electrical systems. Through responsive teaching, staff closely monitor pupils' progress against age-related expectations and provide timely, in-lesson feedback to move learning forward. Support and challenge are tailored to individual needs.

Pupils' work is captured in a whole-class floorbook, which serves as both a formative assessment tool and a shared portfolio of learning. Floorbooks are increasingly recognised in educational research and practice as a powerful means of promoting pupil voice, encouraging reflective thinking, and documenting progression over time. They offer a visual narrative of the class's collective learning journey, allowing teachers to track development of skills and knowledge across units. Additionally, the collaborative nature of floorbooks fosters a sense of ownership and pride in learning.

At the end of each unit, teachers complete an assessment sheet aligned with the knowledge planner, identifying both individual and cohort strengths and areas for development. These insights are used to inform future planning, ensuring that teaching remains adaptive and responsive to pupils' needs.

A Global Curriculum

Embracing a global perspective, our design and technology curriculum at Foxton nurtures each child's innate creativity and innovative spirit. Students engage in a comprehensive design process that reflects the principles of the UN Sustainable Development Goals (SDGs). Starting with goal identification and research, they move through stages of design, model creation, testing, and solution evaluation. This process aligns closely with Goal 9: Industry, Innovation, and Infrastructure, while also fostering skills that empower students to address global challenges such as clean water and sanitation, access to clean energy, climate change, and broader environmental concerns (SDGs 6, 7, 13, and 15). Through this approach, we equip our students to become future problem-solvers and active contributors to a more sustainable world.

Appendix 1

National Curriculum

Purpose of study
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. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils 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.

Aims
The national curriculum for design and technology aims to ensure that all pupils: • 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.

Subject content	
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: **Design** • 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	**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 particular 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 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 **Evaluate** • 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.	**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.