

Design and Technology in the National Curriculum 2014

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

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

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 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

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

- 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

Enstone Primary School Curriculum Rationale for Design Technology

At Enstone Primary School, we use the **Kapow Primary** curriculum to support the teaching of **Design Technology**. The Kapow curriculum provides a carefully sequenced and progressive framework that ensures full coverage of the National Curriculum while enabling pupils to develop secure knowledge, subject-specific vocabulary and disciplinary skills over time.

Curriculum Intent

Our intent is to provide pupils with a broad, balanced and ambitious curriculum that inspires curiosity, creativity and a lifelong interest in the world around them. Through high-quality learning experiences, children develop a secure understanding of the design process from initial ideas through to evaluation. Learning is planned to build progressively, enabling pupils to make meaningful connections within and across subjects as they move through the school.

Curriculum Implementation

Kapow provides a coherent progression of knowledge and skills, ensuring that learning is carefully sequenced from Reception to Year 6. Lessons are designed around clearly identified knowledge, vocabulary and practical application, allowing pupils to revisit and build upon prior learning while introducing new concepts in a logical order. Teachers adapt and enrich the curriculum to reflect the local context of Enstone Primary School, making meaningful links to our village community, local environment and wider curriculum where appropriate. Practical experiences, discussion, investigation, creativity and educational visits further enhance learning and ensure that pupils engage deeply with each subject.

Curriculum Impact

Through this approach, pupils develop secure substantive knowledge alongside the disciplinary skills needed to think and work as designers. They become increasingly confident in using subject-specific vocabulary, asking thoughtful questions, evaluating evidence, solving problems and expressing their ideas creatively. By the end of each key stage, pupils have developed the knowledge, understanding and skills required by the National Curriculum and are well prepared for the next stage of their education, with a genuine appreciation of the richness and diversity of the world around them.

Kapow Design and Technology Units (From September 2026)

Glyme Class – Reception

KAPOW UNITS		
Autumn	Spring	Summer
Structures: Junk modelling Explore and learn about various types of permanent and temporary joins. Experiment using a combination of materials and joining techniques in the junk modelling area.	Cooking and Nutrition: Soup Exploring the differences between fruit and vegetables using their senses. Listen to the story 'The Best Pumpkin Soup' and discuss the key ingredients the characters used before developing a class-based vegetable soup recipe.	Textiles: Bookmarks Develop and practise threading and weaving techniques using various materials and objects. Look at the history of the bookmark from Victorian times versus modern day styles. The children design and make their own bookmark.
Links to Early Years Foundation Stage Curriculum		
PHYSICAL DEVELOPMENT Fine Motor Skills - Hold a pencil effectively in preparation for fluent writing – using the tripod grip in almost all cases; - Use a range of small tools, including scissors, paint brushes and cutlery; - Begin to show accuracy and care when drawing. EXPRESSIVE ART AND DESIGN Creating with Materials - 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.		

Windrush Class – Years 1 and 2

Years 1 and 2 – BASED ON KAPOW MIXED AGE PLANNING		
ACADEMIC YEAR 2026-27		
Autumn	Spring	Summer
CYCLE A Mechanisms: Making a moving story book	CYCLE A Textiles: Puppets	CYCLE B Cooking and Nutrition: Balanced Diet
ACADEMIC YEAR 2027-28		
Autumn	Spring	Summer
CYCLE B Mechanisms: Making a moving monster	CYCLE B Structures: A Chair for a Bear	CYCLE A Cooking and Nutrition: Smoothies

Cherwell Class – Years 3 and 4

Years 3 and 4 – BASED ON KAPOW MIXED AGE PLANNING		
ACADEMIC YEAR 2026-27		
Autumn	Spring	Summer
CYCLE A Mechanical systems: Mechanical Cars	CYCLE B Structures: Product Packaging	CYCLE B Cooking and Nutrition: Adapting a Recipe
ACADEMIC YEAR 2027-28		
Autumn	Spring	Summer
CYCLE A Mechanical systems: Pneumatic Toys	CYCLE A Cooking and Nutrition: Eating Seasonally	CYCLE A Textiles: Egyptian Collars

Evenlode Class – Years 5 and 6

Years 5 and 6 – BASED ON KAPOW MIXED AGE PLANNING		
ACADEMIC YEAR 2026-27		
Autumn	Spring	Summer
CYCLE A Textiles: Stuffed Toys	CYCLE B Structures: Playground Pioneers	CYCLE A Cooking and Nutrition: Developing a Recipe
ACADEMIC YEAR 2027-28		
Autumn	Spring	Summer
CYCLE A Electrical Systems: Doodlers	CYCLE B Textiles: Bags	CYCLE A Structures: Bridges