

Buckfastleigh Primary School

Design and Technology Curriculum Statement

INTENT

Designers and makers from Buckfastleigh Primary School are engaged through enquiry and questioning of the world they live in. Through evaluation of past and present Design and Technology, they develop a critical understanding of its impact on daily life and the wider world.

The intent of our design and technology curriculum is to cultivate creativity, resilience and problem solving. All learners acquire the skills and knowledge they need to design and make products that solve real and relevant problems within a variety of contexts and with an identified purpose and audience.

Key learning in each unit includes:

- revisiting prior knowledge
- designing
- making
- evaluating
- technical knowledge and understanding



Our curriculum is designed to provide opportunities for all children regardless of background, ability or additional needs. Knowledge, skills, techniques, vocabulary and questioning are taught progressively to ensure all learners develop as they move through the school. Children study the following aspects of design and technology

- mechanical systems
- structures
- electrical systems
- textiles
- food

Our Design and Technology curriculum, which works sequentially towards the end points as set out in the EYFS and National Curriculum, makes links to learning in several other subject areas including mathematics, science, computing and art and lays the foundations for interest and engagement in areas of engineering, design and food technology.

IMPLEMENTATION

The National Curriculum is taught through the Design and Technology Association's Projects on a Page planning structure – tailored to suit our curriculum and learners.

Children learn through:

- class teacher delivery of planning which is shaped and overseen by the subject lead
- a variety of creative and practical activities
- investigative and evaluative activities
- focused tasks
- a design, make and evaluate assignment

Adaptations for SEND learners:

- DT communication symbols
- a flexible approach to recording and communicating design ideas and developments
- 'one to one' support for physical making of designs (if necessary)
- key vocabulary sheets (Widget symbols with words)
- flow charts and visual instruction sheets which explain a process in a step-by-step manner (if necessary)
- understanding of possible sensory issues



Oracy in Design Technology:

Through our Design and technology curriculum, pupils have opportunities to develop their oracy skills by:

- Explaining designs, preferences or final products.
- Role-playing from the point of view of the user.
- Discussing products and design ideas using new vocabulary.
- Collaborating by organising tasks within a group.
- Critiquing others' designs and products.
- Reflecting on and responding to feedback towards their own designs and products.
- Summarising design ideas.
- Presenting their design ideas or products to audiences of different sizes.

Pupils will learn to:

EYFS	By the end of Key Stage 1, children will be able to:	By the end of Key Stage 2, children will be able to:
<p><u>Exploring and using media and materials</u></p> <ul style="list-style-type: none"> ➤ Safely use and explore a variety of materials, tools and techniques. ➤ Experiment with colour, design, texture, form and function. <p><u>Being imaginative.</u></p> <ul style="list-style-type: none"> ➤ Use what they have learned about media and materials in original ways, thinking about uses and purposes. ➤ Represent their own thoughts and feelings through design and technology and art. <p><u>Technology</u></p> <ul style="list-style-type: none"> ➤ Select and use technology for particular purposes. 	<p><u>Pupils will learn:</u></p> <p><u>Design</u> 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> <p><u>Make</u> Select from and use a range of tools and equipment to perform practical tasks. Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.</p> <p><u>Evaluate</u> Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria.</p> <p><u>Technical knowledge</u> Build structures, exploring how they can be made stronger, stiffer and more stable. Explore and use mechanisms in their products.</p> <p><u>Cooking and nutrition</u> Use the basic principles of a healthy and varied diet to prepare dishes. Understand where food comes from.</p>	<p><u>Pupils will learn:</u></p> <p><u>Design</u> 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.</p> <p><u>Make</u> Select from and use a wider range of tools and equipment to perform practical tasks 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.</p> <p><u>Evaluate</u> 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.</p> <p><u>Technical knowledge</u> Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. Understand and use mechanical systems in their products. Understand and use electrical systems in their products. Apply their understanding of computing to program, monitor and control their products.</p> <p><u>Cooking and nutrition</u> Understand and apply the principles of a healthy and varied diet Prepare and cook a variety of predominantly savoury using a range of cooking techniques. Understand seasonality, know where and how ingredients are grown, reared, caught and processed.</p>

IMPACT

Children will meet the end of key stage expectations outlined in the National curriculum for Design and Technology. This will be evidenced through:

- Children's DT books
- Progression of skills specific to DT- vocabulary, questioning and critical thinking
- Display
- Lesson observations
- Evaluation of own and others work
- Discussions with pupils
- End of unit assessments
- Annual pupil questionnaire



Year B 2024-2025	Autumn	Spring	Summer
Goldfinches 1	Mechanisms: Making a moving story book	*New* Structures: Constructing a windmill	*New* Cooking and nutrition: Smoothies
Sparrows 1/2	Mechanisms: Making a moving story book	*New* Structures: Constructing a windmill	*New* Cooking and nutrition: Smoothies
King Fishers 3/4	*New* Cooking and nutrition: Eating seasonally	Textiles: Cross-stitch and appliqué	Archived unit: Electrical systems: Static electricity
Barn Owls 4/5	Electrical systems: Torches	Textiles: Fastenings	Structure: Pavilions
Buzzards 6	Textiles: Waistcoats	Electrical systems: Steady hand game	Archived unit: Cooking and nutrition: Come dine with me