



Design and Technology

October 2020

Last reviewed by HJ	October 2020
Next review date	October 2023

Beckley Church of England Primary School

Design and Technology

Our Vision

Promote and achieve excellence in all areas of school life. The school will be a place and a community where all children are happy and safe, where they can flourish and achieve their best in a caring, inclusive environment.

Kindness is our core value, underpinning our school vision: “**Be kind to one another, tender-hearted, forgiving one another**” *Ephesians 4:32*

Curriculum Intent

Each child will start learning – seeking knowledge developing skills – to prepare them to make their way and to contribute, to make changes and to thrive in our changing world of challenge and delight. In this we aim to:

- Develop foundations and individual enthusiasm for life-long learning.
- Inspire curiosity, confidence and creativity in all children.
- Teach the children with their strengths and interests in mind.
- Create many opportunities to spark interest for all children.
- Encourage a secure and positive attitude towards others and the environment.
- Be ambitious for every child, whatever their prior attainment or need.
- Encourage resilience through understanding the importance of making mistakes, listening and responding to feedback and being open-minded.

Aims and Rationale

At Beckley Primary School we believe Design and Technology is essential to prepare pupils to participate in the world’s rapidly changing technologies. Teachers encourage children to develop their investigating, designing, making and evaluating skills by thinking creatively. In its broadest sense, therefore, D&T provides opportunities for them to:

- Observe, investigate, respond to and record the world around them.
- Develop their own thinking and questioning skills.
- Articulate ideas and make critical judgments.
- Develop Growth Mindset through taking risks and solving problems.
- Act independently and with confidence.
- Develop self-awareness.
- Work collaboratively and to take account of others’ views.
- Practise dexterity and practical skills.
- Share their excitement and motivation to learn.

Entitlement and Curriculum Provision

Beckley Primary School links its teaching of Design and Technology to the primary National Curriculum in England. D&T is a motivating context for discovering literacy, maths, science, art, PSHE and ICT. As such, we aim to provide opportunities through cross-curricular projects and when such links enrich the D&T curriculum.

Other than as extensions to learning in related subjects, main starting points for work are first-hand observation, experience and imagination. Children handle and use a wide range of materials, developing their knowledge and understanding of these through practical design and make activities. 'Materials' include textiles, food, construction kits, reclaimed materials, sheet materials, mouldable materials and mechanisms, each in a variety of contexts including, home, recreation, industrial and community.

Wherever possible, children are presented with a choice of tools and resources so that they are best able to meet their designs effectively. ICT, including the use of digital cameras, scanners and computer-aided design software, regularly supports the children's work.

Key stage 1 Pupils:

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in designing and making. At the end of Key Stage 1, most children will be able 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.
- 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 in their products.

Key stage 2 Pupils:

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in designing and making. By the end of Key Stage 2, most children will be able to:

Design

- Use research and develop design criteria to inform the design of purposeful, functional, appealing products for themselves and others.
- Generate, develop, model and communicate their ideas through discussion, annotated sketches, diagrams, templates, mock-ups and, where appropriate, information and communication technology.

Make

- 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 characteristics.

Evaluate

- Explore and evaluate 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.
- Understand and use electrical systems in their products.
- Apply their understanding of computing to 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.

Key stage 1 Pupils should be taught to:

- Use the basic principles of a healthy and varied diet to prepare dishes.
- Understand where food comes from.

Key stage 2 Pupils should be taught to:

- Understand and apply the principles of a healthy and varied diet.
- Prepare and cook a variety of dishes using a range of cooking techniques.
- Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

Inclusion

At Beckley Primary School we provide support and resources for success and challenge at all levels. We provide equal opportunities for all learners regardless of age, gender, ethnicity, impairment, medical concerns, attainment or background. All design and technology activities will ensure an equal interest and participation level for both boys and girls.

Materials and other resources

Each classroom and/or key stage area has its own elementary materials and resources, whilst more specialist items are ordered as necessary and/or more widely shared from central storage. If not borrowed from external sources, reference books, reproduction images and the like are held in the staffroom storage areas, in classroom reading areas or the school library. Children are encouraged at all times to respect and care for their working environment, selecting, using, storing and returning their own materials and equipment safely.

Displays

Work is displayed on classroom boards and shelving, whilst a selection is displayed in corridors and in the school hall. Displays in these communal areas are updated termly, allowing children from all classes the opportunity to share their work with the wider school community.

Safe Practice

This policy takes account of health and safety requirements. Regular risk assessments are undertaken and health, safety and hazard awareness form an integral part of the pupils' learning. Particular care is taken to model and supervise the correct use of sharp cutting tools, electrical appliances and processes involving hot materials.

Assessment and Attainment targets

Pupils' experiences and achievements in Design and Technology are recorded throughout, and at the end of, each phase. Teachers regularly assess learning through observation, listening and questioning and verbal feedback is given during lessons. The actual work children produce will serve as a record of their achievement. Assessments are based on the Progression of Key Skills for the relevant Key Stages and recorded in the Progression Monitoring Record for each year group at the end of every topic. By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.

Monitoring

Monitoring of the standards of children's work and the quality of teaching in Design and Technology is the responsibility of the subject co-ordinator. The work of the DT Co-ordinator also involves supporting colleagues in their teaching, keeping an up-to-date knowledge of current developments in the subject and providing a strategic lead and direction for Design and Technology in the school. Monitoring activities include reviewing displays of the children's work and keeping photographic records of these displays in a portfolio.

Review

The implementation of this document will be monitored by the Design and Technology Co-ordinator and Senior Leadership Team (SLT) and will be updated in line with new initiatives. This document will be reviewed in October 2023.