DT Policy

Date of Policy	Spring Term 2023
Date of Review	Spring Term 2024

Curriculum Statement

Intent

In Design Technology (DT) we aim to inspire pupils to be creative and innovative thinkers who have an appreciation for the product design cycle through ideation, creation, and evaluation.

At St Bartholomew's, we want our pupils to develop the confidence to take risks, through drafting design concepts, modelling and testing and to be reflective learners who evaluate their own work and the work of others.
We aim to, wherever possible, link work to other disciplines such as mathematics, science, computing and art.

We want to allow children to aspire to be more, through creating opportunities for them in the wider world. Through the DT curriculum, children should be inspired by engineers, designers, chefs and architects to enable them to create a range of structures, mechanisms, textiles, electrical systems and food products with a real life purpose.

Implementation

Through a variety of creative and practical activities, we teach the knowledge, understanding and skills needed to engage in an interactive process of designing and making. The children work in a range of relevant contexts (for example home, school, leisure, culture, enterprise, industry and the wider environment).

The National Curriculum organises the Design and technology attainment targets under 5 subheadings:

- Design
- Make
- Evaluate
- Cooking and Nutrition
- Technical knowledge

Our curriculum overview shows which of our units cover each of the NC attainment targets as well as each of the five strands. All classes will have scheduled Design and Technology lessons each term and will also be taught alongside other curriculum subjects.

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 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

Cooking and Nutrition

- use the basic principles of a healthy and varied diet to prepare dishes
- understand where food comes from
- 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

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 programme, monitor and control their products

Impact

We ensure the children

- 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 and 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. Children will design and make a range of products. A good quality finish will be expected in all design and activities made appropriate to the age and ability of the child

Children learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop an understanding of its impact on daily life and the wider world.

Teaching and learning

Design and Technology will engage the children in a broad range of designing and making activities which involve a variety of methods of communication, speaking, designing, drawing, assembling, making, writing, taking photographs and computer technology. Projects are taught in half termly units which allows for more effective learning in which teachers can focus on teaching and developing DT skills, allowing children to develop their ideas and techniques. Units of work have been selected and planned to ensure a balance of materials, skills, knowledge and understanding throughout each Key Stage.

Our curriculum overview shows which of our units cover each of the NC attainment targets as well as each of the five strands. We use Kapow Primary to aid our planning and assessment. Through our DT scheme, pupils respond to design briefs and scenarios that require consideration of the needs of others, developing their skills in 6 key areas:

- Mechanisms
- Structures
- Textiles

- Cooking and nutrition (Food)
- Electrical systems (KS2)
- Digital World (KS2)

Each of our key areas follow the design process (design, make and evaluate) in a spiral curriculum, with key areas revisited again and again with increasing complexity, allowing pupils to revisit and build on their previous learning.

We find fascination in our learning through different types of activities art lessons, (Craft Club, Computing Club, Cookery Club), outdoor learning (Forest School) and educational visits (science and art museums).

Assessment

Children's skills will be assessed and developed by the teacher during lessons. At the end of each unit an assessment grid is then used to record children's attainment i.e below, secure, above. Displays will reflect a range of work across key stages, by children of all abilities.

Planning and Resources

Collaboration with colleagues allows for designing schemes of work to support specific topics. Teachers will either select materials needed to complete a DT project from the DT resource area, purchase any materials needed for the design, construction and evaluation of a project or decide to use recycled materials or junk modelling. Children are taught to use tools and equipment in a sensible, safe and efficient manner.

Organisation

Design and Technology planning is mapped in half termly blocks on the Whole School Curriculum Overview. Links with other subject areas may be made where appropriate.

EYFS

The team will plan for children to experience creative opportunities and develop key skills and techniques within the EYFS curriculum. There will be a focus on developing fine motor skills and learning how to plan, design and produce the

finished project. The Reception class will be, where appropriate, included in whole school projects.

KS1 and KS 2

Teachers will plan lessons so that children will learn to design purposeful, functional, appealing products for themselves and others based on design criteria and to communicate their ideas through talking and drawing. They learn to select from and use a range of tools and equipment to perform practical tasks and to choose from a wide range of equipment and components. They also learn to explore and evaluate their design and product.

Equal Opportunities

Whole school policy on equal opportunities will be adhered to in Design and Technology activities. Children with special needs or physical disabilities will be differentiated for and supported appropriately, to ensure development of skills and equal access to the Design and Technology curriculum.

Inclusion

All children will be supported through differentiation, adaptation or adult support, to enable equal access to learning in Design and Technology.

Role of the Subject Leader

The subject leader is responsible for:

- Raising the profile of the subject.
- Ensuring that resources are sufficient and appropriate.
- Replacing and acquiring new resources.
- Modelling teaching.
- Monitoring teaching.
- Ensuring that the progression of key skills throughout the school are planned for.
- Assisting colleagues to analyse assessment information and from this the planning and delivery of future lessons to meet needs/address gaps.
- Improving the subject through analysing the strengths and weaknesses and writing an improvement plan each year.