



St John with St Augustine CE Primary School

Design and Technology Policy

Our School's Vision

“With God’s help, together, we aspire, achieve and believe.”

Intent

At St John with St Augustine Primary School, all children receive a design and technology (DT) curriculum which allows them to exercise their creativity through designing and making. We aim to fulfil the requirements of the National Curriculum for design and technology, delivering a coherently planned and sequenced curriculum whilst ensuring the progressive development of knowledge and skills.

We understand the diversity of the world and the value of exposing our children to a wide range of products that can stimulate their interest and creativity. Through this exposure, children take on the role of creator and evaluator, learning how to take risks and exploring how outcomes can be developed or tailored for different users, as well as how we can think innovatively to solve problems and make products even better.

Children need a hands-on approach that also benefits other areas of the curriculum such as maths, science, computing and art alongside opportunities to develop their cultural capital through a range of opportunities. Skills and methods developed through Design and Technology are of utmost importance in our ever-changing technological world to guarantee that our children are ambitious and prepared for future learning and employment.

‘Design is not just what it looks like and feels like. Design is how it works.’

Steve Jobs

Implementation

Through a variety of creative and practical activities, we teach the knowledge, understanding and skills needed to engage in an iterative process of designing and making. The children design and create products that consider function and purpose and which are relevant to a range of sectors (for example, the home, school, leisure, culture, enterprise, industry and the wider environment).

When designing and making, the children are 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 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, as well as chopping and slicing) accurately.
- select from and use a wider range of materials, ingredients and components, including construction materials, textiles and ingredients, according to their functional properties, aesthetic qualities and, where appropriate, taste.

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.

Develop, Use and Apply 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 program, monitor and control their products

Key skills and key knowledge for Design and Technology have been mapped across the school to ensure progression between year groups. The context for the children's work in Design and Technology is also well considered and children learn about real life structures and the purpose of specific examples, as well as developing their skills throughout the programme of study. Design and technology lessons are also taught as a block so that children's learning is focused throughout each unit of work.

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

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 and using computer technology. Projects are taught in blocks 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. Units of work are planned to include designing and making assignments supported by focused practical tasks or skills teaching and work involving reviewing existing products. All children should have a breadth and balance of

experience. The curriculum is designed to enable progression in Design and Technology processes, including specific aspects of designing and evaluating. It also ensures that children develop their knowledge and skills systematically; choosing and using an increasing range of tools and techniques to suit a range of different purposes and developing their knowledge and understanding of mechanisms and structures to enable the incorporation of mechanical and electronic systems into their products.

Planning

The planning of the curriculum is organised into the following phrases:

- Whole School Curriculum Mapping
- Yearly Overviews
- Progression of Skills
- Medium term planning
- Short term planning

Overviews and the progression of knowledge and skills planning is done as a whole teaching staff to ensure coverage of the statutory National Curriculum content.

Medium term planning is done within: EYFS, Key Stage One, Lower Key Stage Two and Upper Key Stage Two. This is then shared with the Senior Leadership Team and all other teaching staff to ensure transparency and so that each teacher knows the prior and next stages of learning. This enables the successful teaching and learning of design technology.

Short term planning is done by individual teachers for their class. This is then shared on to One Drive for other teachers and for monitoring of planning by the subject leader.

EYFS

Design and technology in the EYFS is informed by and aligned to the following related early learning goals:

Physical Development

Fine Motor Skills ELG:

Use a range of small tools, including scissors, paint brushes and cutlery.

Begin to show accuracy when drawing.

Expressive Arts and Design ELG:

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 processes they have used.

The EYFS team 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 developing skills on how to plan, design and produce a product. The knowledge and skills acquired and developed in the EYFS will provide the foundation for those identified in subsequent years.

KS1 and KS2 Teachers will plan for 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

materials and components. Each aspect of the school's Design and Technology programme of study links explicitly to the five National Curriculum strands. The provision will support each child's achievement of the 'end-points', as stated on the school's Design and Technology Knowledge and Skills Progression Mapping documents, which are directly informed by the National Curriculum 2014.

Inclusion

Through our design and technology teaching we provide learning opportunities that allow all of our pupils to make progress. All children will be supported through adapted teaching or adult support, to enable equal access to learning in Design and Technology. Teachers will provide instruction and guidance on technical processes and consider the specific needs of our children. We strive to meet the needs of all our pupils with special educational needs, disabilities, who show special talent, and of those with English as an additional language. QR codes, photographs and print outs of tasks completed on a computer can be used to evidence a learning process where the child has not produced a recorded outcome.

Role of the Subject Leader

The subject leader will monitor the teaching and learning of Design and Technology across the school; ensuring a high quality, broad and stimulating curriculum. They will also support and facilitate opportunities that support the continued professional development of teachers in the teaching and learning of Design and Technology. A range of good-quality materials and tools, which enable teachers to resource and teach the subject effectively, will be maintained by the subject leader.

The Governing Body

An annual report is made to the governing body on the progress of design and technology provision. This policy will be reviewed every three years or in the light of changes to legal requirements.

Conclusion

This policy also needs to be in line with other school policies and therefore should be read in conjunction with the following school policies:

- Teaching and Learning Policy
- Assessment and Record Keeping Policy
- Special Educational Needs Policy
- Pupil Premium Policy
- ICT Policy
- Equal Opportunities Policy
- Health and Safety Policy

Design and Technology Subject Leader: Miss C Martin
(Updated February 2023)