St. Peter's C of E Primary & Nursery School

Design and Technology Policy

'Unlocking the gates to a lifelong love of learning and faithfulness'

"Start children off in the way they should go, and even when they are old they will not turn from it" Proverbs 22:6

Ratification Date: Summer 2023
Review Date: Summer 2027

St. Peter's Vision Statement:

At St Peter's C of E Primary School, the growth and development of children and adults is central to everything we do. As a church school, we aim to serve and take care of our community by providing an education which inspires every child to be the best they can be. This is within a framework which is rooted in distinctive Christian beliefs and values whilst embracing diversity, respecting other faiths and worshipping together. We encourage an understanding of the meaning and significance of faith and promote Christian values through the experiences we offer to all our school community.

We are a TAKE CARE school.
Everyone will take care of themselves - practicing mindfulness and being mindful of their own well being Everyone will take care of others in their speech and actions. They will be mindful of others.
Everyone will take care of the school - its fabric and reputation.
Everyone will take care of the community through their actions.
Everyone will take care of the wider world through acts of charity.

Our 'Beyond Expectation' attitudes:

Be kind
Be positive
Be respectful
Be forgiving
Be courageous
Be trustworthy
Be yourself!

These Christian values underpin all that we do in school so that our children may live out the Vision of the school.

EQUALITY, DIVERSITY AND INCLUSION STATEMENTS

In fulfilling our legal obligations we will be guided by seven core statements:

Statement 1: All learners are of equal value.

Statement 2: We recognise, welcome and respect diversity.

Statement 3: We foster positive attitudes and relationships, and a shared sense of belonging.

Statement 4: We observe good equalities practice, including staff recruitment, retention and development.

Statement 5: We aim to reduce and remove existing inequalities and barriers.

Statement 6: We consult and involve widely

Statement 7: We strive to ensure that society will benefit.

Intent

Our intention is to provide a stimulating and caring Christian environment in which children are encouraged and nurtured to achieve their full potential. We intend to provide a curriculum which inspires pupils to acquire knowledge as designers and technologists and enables them to skilfully apply their understanding.

At St Peter's C of E Primary School, we are committed to providing all children with ambitious learning opportunities to engage in design and technology. The purpose of design and technology education is to give pupils the skills, concepts and knowledge necessary to successfully think, work and communicate like a designer. Our curriculum focuses on excellence in this subject through experiencing a range of disciplines and by referencing outstanding practitioners in this field.

Design and technology prepares children to take part in the development of tomorrow's rapidly changing world. Creative thinking encourages children to make positive changes to their quality of life. The subject encourages children to become autonomous and creative problem-solvers, both as individuals and as part of a team. It enables them to identify needs and opportunities and to respond by developing ideas, and eventually making products and systems.

Through the study of design and technology they combine practical skills with an understanding of aesthetic, social and environmental issues, as well as functions and industrial practices. This allows them to reflect on and evaluate present and past design and technology, its uses and its impacts. Design and technology helps all children to become discriminating and informed consumers and potential innovators. At St Peter's C of E Primary school, we will inspire children to combine practical skills with an understanding of aesthetic, social and environmental issues, as well as functions and industrial practices.

Aims

We believe design and technology is essential to prepare pupils to participate in tomorrow's rapidly changing technologies. Teachers encourage children to develop their investigating, designing, making and evaluating skills by thinking and intervening creatively.

The aims of Design and Technology are:

- To develop imaginative thinking in children and to enable them to talk about what they like and dislike when designing and making things
- To enable children to talk about how things work, and to draw and model their ideas. Progressively 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
- To encourage children to select appropriate tools and techniques for making a product, whilst following safety procedures. To successfully critique, evaluate and test their ideas and products and the work of others
- To explore attitudes towards the 'made' world and how we live and work within it
- To develop an understanding of technological processes and products, their manufacture and their contribution to our society
- To foster enjoyment, satisfaction and purpose in designing and making things. Children will develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world.
- Pupils will understand and apply the principles of nutrition and learn how to cook.

1 Curriculum and planning

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils will design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. Pupils will acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Through an engaging curriculum child will learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology work, they will develop a critical understanding of its impact on daily life and the wider world.

Teachers at St Peters CofE follow the progressive CUSP curriculum which ensures that new learning is built upon prior knowledge in previous years. Design and Technology is planned for mixed year groups in two-year cycles (KS1, LKS2 and UKS2) to engage and excite all our learners.

1.2 Early Years

In the Early years, design and technology is taught primarily through the Early Learning Goal: creating with materials. When creating with materials children will be guided to safely use and explore a variety of materials, tools and techniques, to experiment with colour, design, texture, form and function. They will be encouraged to confidently share their creations and explain the process they have used and to use the skills developed in this area to make use of props and materials when role playing characters in narratives and stories.
Our intent is that the Early Year's curriculum utilises young children's natural creativity and offers opportunities for investigation, designing and making which enables children to learn a great deal about their world. By making, changing and modifying (or designing) things for themselves, children can come to a greater understanding of their world, and the understanding that they can change and modify their environment. We strive to encourage our learners to begin to identify similarities and differences, as well as patterns and exceptions through hands on experiences. Children will begin to explore and experience cause and effect, which over time will lead them to ask questions about how things happen and how they work.

1.3 Key Stage 1

During Key Stage 1, pupils will be taught design and technology concepts through a variety of creative and practical activities. Pupils will be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They will be able to do this by working through the CUSP units covering mechanisms, structures, food and nutrition, materials and textiles. Each unit also focuses on the work of a specific design or designer, developing a broad and diverse knowledge throughout the two-year cycle.

1.4 Key Stage 2

During Key Stage 2, pupils should continue to be taught design and technology concepts through a variety of creative and practical activities. Pupils will work through the CUSP units building on themes from Key Stage One including structures, mechanisms, textiles, materials, food and nutrition and electrical systems.

As in Key Stage One, pupils will continue to learn about a range of designs and designers, continuing their application and understanding of different technical disciplines, and the influential work of designers within these areas.

1.5 Cooking and Nutrition

As part of their work with food, pupils across both Key Stages One and Two 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. The CUSP curriculum offers a wide and exciting program of learning about cooking and nutrition for our children.

1.6 Reasonable adjustments for pupils with SEND

As part of the planning and preparation for the delivery of each block, teachers will need to consider how specific activities, or the delivery of specific sessions, may need to be adjusted to ensure that pupils with SEND are able to access the materials and participate fully in the lesson. Pupils with language and communication difficulties (including those with ASD) may need additional visual prompts to help them understand what is expected of them. Some pupils may require individual task boards to enable them to follow a series of steps where a task has been broken down into smaller, more manageable chunks.

Some pupils may have sensory sensitivities. For those pupils, adjustments may need to be made in order for them to access materials. For example, pupils with specific sensory aversions (e.g. ARFID) may need support touching or tasting food which may include them only observing activities. Pupils who have significant motor skill difficulties may require adapted tools for cutting or slicing.

2 Progression and Continuity

CUSP is underpinned by evidence, research and cognitive science. Modules are deliberately sequenced for robust progression and allows teachers to focus on the lesson. There is an emphasis on oracy and vocabulary acquisition, retention and use to break down learning barriers and accelerate progress. A rich diet of language and vocabulary is deliberately planned for. Specific skills are discretely taught and practised so that they become transferrable. The sequenced modules activate prior learning, build on skills and deepen knowledge and understanding. Learning, vocabulary and content is cumulative; content is learned, retrieved and built upon.

CUSP Design and Technology curriculum is organised into blocks with each block covering a particular set of disciplines, including food and nutrition, mechanisms, structures, systems, electrical systems, understanding materials and textiles. Vertical progression in each discipline has been deliberately woven into the fabric of the curriculum so that pupils revisit key disciplines throughout their Primary journey at increasing degrees of challenge and complexity. In addition to the core knowledge required to be successful within each discipline, the curriculum outlines key

aspects of development in the Working as a Designer section. Each module will focus on promoting different aspects of these competencies. This supports teachers in understanding pupils' progress as designers more broadly, as well as how successfully they are acquiring the taught knowledge and skills.

3 Assessment and Recording

Assessment of pupils is formative and is based on pupil outcomes and questioning from each lesson. The following can be used to assess pupils' knowledge and application of skills and techniques as well as their understanding and use of relevant vocabulary.

• Expectations for each block are made explicit e.g. pupils will know how to waterproof cotton fabric and which fabrics are both functional and hardwearing.
• The Point of reflection section specifies the expected outcomes for each lesson.
• The Questions for assessment section in each block provide specific questions to be used with pupils to elicit their level of understanding of tools, techniques and effects, e.g. How have the properties of the cotton changed? Is the cotton now more or less functional?
• The Oracy and Vocabulary tasks provide ample opportunities for teachers to evaluate pupils' ability to: - use the language of design and technology effectively; - explain techniques, skills and processes; - evaluate their own and others' work.
• The vocabulary quiz provides an opportunity for teachers to assess pupils' deeper understanding and application of the technical vocabulary covered in the block.
• The exemplifications demonstrate the expected standard against which teachers can assess pupils' work.

Overall though, the best form of assessment in design and technology is at the point of delivery, while pupils are working. This helps us to understand pupils' development as designers, rather than their ability to produce a prescribed end outcome. By encouraging pupils to articulate their thinking and reflections, we can understand which aspects of design and technology may require additional teaching and reshape teaching to support this.

4 Monitoring

Monitoring takes place regularly through teacher assessment, pupil voice and book scrutiny by the Design and Technology lead. Governors are involved in monitoring during bi-annual Governor's Monitoring Week through learning walks, discussion with subject lead and work scrutiny.

5 Roles and Responsibilities

The teacher is responsible for preparing and delivering the lesson. The subject is led by a member of staff and each year, time is set aside to review standards, monitor curriculum provision, and ensure training and resources are up to date.

6 Health and Safety

Practical activities, and the use of a range of tools, are an essential part of the Design and Technology curriculum. The class teacher, or leader, should plan the use of resources

meticulously, with the pupils' safety and welfare paramount. Risk assessments for use of sharp objects or dangerous materials should be completed as per the school guidelines.

7 Resources

The CUSP curriculum provides clear curriculum guidance for teachers, in depth teaching notes and resources as well as knowledge notes and lesson resources for the children. Full material lists for the units can be accessed in the subject leader files on the CUSP website. Each class has access to the internet and a range of resources for investigative work. There is a central storage area which can be accessed by teachers as required where tools and materials are freely available. Children are taught about, and encouraged to research and create a wide and diverse range of designs and designers throughout their school career.