

# DESIGN AND TECHNOLOGY POLICY



**Our school is a place where we all come together as one community to learn, have fun and make lasting friendships, all under God's love and care.**

|                            |                |                           |
|----------------------------|----------------|---------------------------|
| <b>Approved by:</b>        | Governing Body | <b>Date:</b> October 2023 |
| <b>Last reviewed on:</b>   | September 2024 |                           |
| <b>Next review due by:</b> | September 2026 |                           |

## 1. Intent

At St Lawrence Catholic Primary School, we recognise that the personal development of pupils, spiritually, morally, socially and culturally, plays a significant part in their ability to learn and achieve. We therefore aim to provide an education that provides pupils with opportunities to explore and develop their own values and beliefs, spiritual awareness, high standards of personal behaviour, a positive, caring attitude towards other people, an understanding of their social and cultural traditions and an appreciation of the diversity and richness of the cultures.

Design and technology prepare 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 of 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 help all children to become discriminating and informs consumers and potential innovators.

## 2. Aims

Through our teaching of Design and Technology, we aim to:

- Develop imaginative thinking in children and to enable them to talk about what they like and dislike when designing and making things
- Enable children to talk about how things work, and to draw and model their ideas
- Encourage children to select appropriate tools and techniques for making a product, whilst following safe procedures
- Explore attitudes towards the 'made' world and how we live and work within it
- Develop an understanding of technological processes and products, their manufacture and their contribution to our society
- Foster enjoyment, satisfaction and purpose in designing and making things
- Develop the cross-curricular use of design and technology in other subjects.

## 3. Legislation and guidance

This policy reflects the requirements of the [National Curriculum programmes of study](#), which all maintained schools in England must teach.

It also reflects requirements for inclusion and equality as set out in the [Special Educational Needs and Disability Code of Practice 2014](#) and [Equality Act 2010](#), and refers to curriculum-related expectations of governing boards set out in the Department for Education's [Governance Handbook](#).

In addition, this policy acknowledges the requirements for promoting the learning and development of children set out in the Early Years Foundation Stage (EYFS) statutory framework

## 4. Role of Staff

## Subject Leadership

Monitoring of the standards of children's work and of the quality of teaching in design and technology is the responsibility of the Design and Technology Coordinator. The work of the coordinator also involves supporting colleagues in the teaching of design and technology, being informed about current developments in the subject, and providing a strategic lead and direction for the subject in the school. Meetings with the senior leadership team are organised to:

- Ensure that the subject is regularly discussed, reviewed and monitored within the school
- Keep resources up to date and relevant, particularly in preparation for each unit of work
- Promote design and technology good practice throughout the school
- Set a good example of design and technology practice
- Support long term planning for the whole school
- Monitor and evaluate design technology through the school (DT coordinator folder will save a photo of each class' best piece for each unit so that I have examples of coverage, quality and progression.
- Provide INSET
- Promote design and technology's profile in the school.

## **5. Organisation and planning**

### Attainment Targets

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.

### Curriculum Provision

The teaching and learning of design and technology helps to give pupils the knowledge, skills and understanding they need in order to meet the above aims. The children at St Lawrence will be given opportunities to plan, develop and communicate ideas, through talking, drawing and writing. They will work with a wide range of tools, equipment and materials to make products of increasingly good quality. Children will be given opportunities to evaluate what they are making and the finished product saying how they think it can be improved. Pupils will increase their knowledge and understanding of materials and components.

At St Lawrence School, Design and Technology is delivered within a whole school approach that includes:

- Teaching a discreet, timetabled subject
- Delivery as part of other curricular activities, making links wherever appropriate
- As part of extra-curricular activities such as clubs, visits to museums and visitors.

### Planning

Our school uses the National Curriculum 2014 for design and technology as the basis of its long-term curriculum planning. Our framework shows how design and technology coverage is ensured

through a rolling programme, as well as incorporating the Early Years Framework. The programmes of study for design and technology are set out for key stages 1 and 2.

Our long-term plan maps out the themes covered in each term during the Key Stage. The schematic plan lists the specific learning objectives for each lesson.

These plans are monitored for coherence and progression. Teachers are careful to select topics and methods of delivery that are appropriate to the needs and experience of the children and to the local circumstances of the school. We use the Kapow scheme of learning which is used alongside existing plans.

## **Foundation Stage**

Design and technology in the Foundation Stage is an integral part of the topic work covered during the year. We relate the technological aspects of the children's work to the objectives set out in the development matters. The Early Learning Goal is then assessed at the end of Reception.

## **Teaching Methods and Learning Approaches**

Good teaching relies on using appropriate methods for the aim of the lesson, or unit of work. All teachers are encouraged to develop a repertoire of flexible, active learning methods, as well as an understanding of how children learn. Teaching methods may include a variety from the following:

- Effective strategies for starting and ending lessons, sharing objectives with the children
- Encouraging an active, questioning approach among the children
- Providing opportunities for children to work both individually and as part of groups
- Problem solving, with older children deciding on their own lines of enquiry
- Developing strategies to encourage independent learning
- Focusing on key skills, concepts and attitudes of the subject
- Time for reflection, review and evaluation.

DT is linked to other curriculum areas and cross-curricular links are identified in the Quick check document. There may also be Art & DT Week in school where children may be working with other Artists and/or around a specific theme as identified at quality assurance. An Art/DT gallery is usually organised for parents and children to appreciate the work.

### **Expectations**

By the end of Key Stage 2 it is expected that most children will be able 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 and exploded 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

#### **Technical knowledge**

- Apply their understanding of how to strengthen, stiffen and reinforce more complex structures
- Understand and use mechanical systems in their products
- [for example, gears, pulleys, cams, levers and linkages]
- Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]
- Apply their understanding of computing to program, monitor and control their products.

#### **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.

### **Assessment, Reporting and Recording**

Assessment will be built into the planning of the subject, either regularly in small steps, or to complete a unit of work. All class teachers are responsible for short term planning based on the schematic plans. They will:

- Identify the appropriate teaching and learning strategies required
  - Provide a balance and variety within the classroom – of content and organisational opportunities for pupils
  - Assess and plan the specific needs of children within their own class whilst adhering to the progression laid down within subject planning.
- 
- In order to meet the demands of the Design technology Curriculum, the children in Key Stage 1 and 2 in St Lawrence Catholic Primary School will use a sketchbook.

Sketchbooks should be used for:

- “Knowledge organisers” at the start of each unit with the clear LI, key vocabulary, skills and resources involved
- working out ideas, plans and Designs
- keeping a visual record of their observations made from a range of first-hand resources; this should be done on a regular basis
- recording, exploring and storing visual and other information, such as notes and selected materials, which can be used for reference
- an Ideas Book, in which the children explore their own ideas
- collecting materials, such as postcards, fabric Designs and wrapping paper, which they feel could be an inspiration for their own work

Teachers and children can look back through the sketchbooks and reflect on the work, identifying progress. Pupils can make sketches in their books as a preparation for a piece of work. Teachers will include a photograph of the finished product or display and stick in their sketch book.

## 5. Inclusion

### How to identify the More Able in Design Technology:

**Parent and pupil feedback:** a student might have interests outside of school that teachers are unaware of. Parents should be invited to communicate this information to teachers. Equally pupils should be encouraged to identify their own individual strengths and weaknesses.

**Teacher identification:** teachers are often best placed to identify which students are gifted or talented so they can be extended and challenged. They may also be aware of when students with gifted and talented potential are underachieving. The observation of a child's work and the quiz will help teachers to clearly identify children who know more and have learned more at the end of a unit.

### What support should More Able students be given?

Once the More Able have been identified, our school will begin a coherent and consistent provision strategy. This will usually involve a combination of the following methods of support:

**Enrichment:** this is when a student is encouraged to go beyond the usual limits of a subject or topic. Here at St Lawrence we direct our children to outside agencies and provision e.g. Art/DT clubs, links in community such as Feltham Arts and the opportunities they offer, identifying and allowing access to any special DT activities in school, such as Artist visits and workshops.

**Extension:** this is when students are given activities that develop higher order thinking skills and work practices. Extension activities help students to work with greater autonomy and self-discipline.

The Kapow scheme has activities built in to challenge and extend Greater depth children.

### **Professional Development**

In order to further understanding, confidence and experience of DT, opportunities are available for staff training and Inset courses. Additionally St Lawrence Catholic Primary School provides support for ECT's and students needing guidelines or direction within a scheme of work. Currently the Kapow scheme is proving to be successful in developing the needs of experienced as well as new teachers. Staff are particularly enjoying the teacher videos offered by the scheme, which has increased their own knowledge base as well as confidence in delivering certain skills.

### **Computing**

At St. Lawrence Catholic Primary School we believe that the inclusion of Computing throughout the DT Curriculum is a beneficial and integral part of each individual child's learning experience and development. The use of Computing within DT can:

- Develop cross curricular links
- Introduce children to new/alternative ways of manipulating a developing media
- Provide opportunities for investigation of information on various areas of interest, such as particular techniques for a Scheme of Work or background data for a specific topic.

### **Equal Opportunities**

All teaching and non-teaching staff at St Lawrence Catholic Primary School are responsible for ensuring that every pupil, whatever their ability, should have the opportunity to experience success in learning at the highest possible standard. We aim to identify and minimise barriers to learning and take account of gender, ability, disability, social, cultural, and linguistic background when planning lessons. Provision is made to enable all pupils to participate effectively in curriculum and assessment activities.

All children engage in DT activities exploring a wide variety of media, i.e.: fabrics, construction materials and card etc. This policy ensures that certain aspects of DT are not seen as more appropriate for boys or girls. Individual teachers consider carefully the groupings they have. These might depend on the experiences the children have had in their home environments

Whatever the manner of class organisation, we try to ensure that no child adopts a passive role in Design and technology activities at St Lawrence Catholic Primary School.

### **Special Educational Needs**

Two main areas where pupils with Special Educational Needs might encounter difficulty are communications and making things. Art and Design is an opportunity for children to achieve in a practical subject, as they are encouraged to communicate in a different way (other than writing), for example by using a camera (video recording or pictures). Children who lack muscular control and co-ordination could have a problem in using some tools. Whenever possible, suitable tools are provided after consultation with Support Staff or the SENDCo. Otherwise, tasks are adapted so that the child can participate. Sensitive grouping encourages shared expertise and this reduces difficulties in specific areas.

See the Policy for Special Education Needs and disabilities (SEND) for more details.

### **Every Child Matters**

Some children will always require extra help because of the disadvantages they face. The key is to ensure children receive support at the first onset of problems, and to prevent any children slipping through the net.

**Enjoying and achieving:** getting the most out of life and developing the skills for adulthood.

**Making a positive contribution:** being involved with the community and society.

**Economic well-being:** not being prevented by economic disadvantage from achieving their full potential.

### **Health and Safety**

The general teaching requirement for health and safety applies in this subject. We teach children how to follow proper procedures for food safety and hygiene. Hot melt glue guns, Stanley knives and staple guns should not be used by the children. Cool melt glue guns should be used with care.

## **6. Monitoring and arrangements**

This policy will be reviewed by Julita Troc-Kapuscinska (Design and Technology coordinator) once a year. At every review, the policy will be approved by the governors and Leo Duggan (HT) and Jo Orpwood(DHT)

## **7. Links with other policies**

This policy links to the following policies and procedures:

SEND Policy

Accessibility Policy

Marking and feedback policy

Health and safety Policy