Design and Technology Policy

Approved by:	**Curriculum Committee**
Date:	**June 2025**
Next review due by:	**June 2028**

Policy Statement

At St. Leonard's School, we believe that teaching and learning in Design and Technology develops children's skills and knowledge in design, structures, mechanisms, electrical control and a range of materials, including food. It encourages children's creativity and encourages them to think about important issues.

Purpose and Intent

This Design and Technology Policy sets out our school's approach to delivering high-quality design and technology education in accordance with the 2014 National Curriculum for England, and Development Matters for EYFS 2023. It outlines our commitment to providing a stimulating and inclusive learning environment that promotes creativity, problem-solving skills, and practical knowledge.

Design and Technology encourages children to learn to think and intervene creatively to solve problems both as individuals and as a team. They are given opportunities to investigate, evaluate and reflect on past and present design and technology, its uses, and its effectiveness before designing, making and evaluating their own product.

Guidelines: the approach to teaching and learning in Design and Technology

The school's aim is to provide a Design and Technology curriculum which will enable each child to reach their full potential in learning in Design and Technology. To achieve that aim the school plans a range of activities in which provide opportunities for pupils to:

1. develop understanding of key concepts related to design and technology.

2. enable them to apply their knowledge, skills, and understanding creatively and practically.

3. develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world.

4. 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.

5. critique, evaluate and test their ideas and products and the work of others.

6. understand and apply the principles of nutrition and learn how to cook.

7. foster curiosity, critical thinking, and a spirit of innovation.

8. become empowered, to become active participants in the design and making process.

9. raise their awareness of sustainable design principles and the impact of technology on society and the environment.

10. collaborate, communicate, and evaluate design and technology projects.

Early Years

Design and Technology largely contributes to developing the characteristics of effective early learning – finding out and exploring, active learning and creating and thinking critically. Children in the Early Years will carry out investigative and skills based tasks during independent and guided adult focus activities. They will be encouraged to undertake focused practical tasks through directed and self-initiated stimuli. They will have their own ideas and be provided with a range of resources and tools within the classroom and outdoors then be encouraged to review their work. Design and Technology links closely to the Expressive Arts & Design area of learning, and also Physical Development and Understanding of the World.

Key Stage 1

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment]. When designing and making, pupils should be taught to:

Design

1. design purposeful, functional, appealing products for themselves and other users based on design criteria.

2. generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.

Make

1. select from and use a range of tools and equipment to perform practical tasks. [for example, cutting, shaping, joining and finishing]

2. select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.

Evaluate

1. explore and evaluate a range of existing products.

2. evaluate their ideas and products against design criteria.

Develop technical knowledge

Build structures, exploring how they can be made stronger, stiffer and more stable. explore and use mechanisms [for example, levers, sliders, wheels and axles], in 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. 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.

Pupils should be taught to:

1. use the basic principles of a healthy and varied diet to prepare dishes.

2. understand where food comes from.

Key Stage 2

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home, school, leisure, 4 culture, enterprise, industry and the wider environment]. When designing and making, pupils should be taught to:

Design

1. 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

2. generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

3. evaluate existing products and identifying their strengths and areas for improvement. Exposing children to influential designers and architectural achievements will inspire their own designs.

Make

1. work with a range of materials and tools, including textiles, wood, and food.

2. learn techniques such as cutting, shaping, joining, and finishing.

3. use accuracy, precision, and safety in practical activities.

4. experiment with materials and techniques to explore their properties and potential uses.

Evaluate

1. evaluate their own designs and creations against identified criteria.

2. investigate and analyse a range of existing products

3. gather feedback from others and use it to refine their work.

4. develop the ability to reflect on the successes and challenges of their design and technology projects.

5. understand how key events and individuals in design and technology have helped shape the world

Develop technical knowledge

1. apply their understanding of how to strengthen, stiffen and reinforce more complex structures.

2. understand and use mechanical systems in their products. [for example, gears, pulleys, cams, levers and linkages]

3. understand and use electrical systems in their products. [for example, series circuits incorporating switches, bulbs, buzzers and motors]

4. apply their understanding of computing to program, monitor and control their products.

Cooking and Nutrition

As part of their work with food, pupils will build on prior learning from Key Stage 1. Pupils should be taught to:

1. understand and apply the principles of a healthy and varied diet.

2. prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.

3. understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.

Progression and Differentiation

The whole school plans ensure the continuity and progression of knowledge and skills; differentiation is incorporated into short term plans to enable all learners to access the material taught and to provide suitable challenge for the most able pupils.

Children in Key Stage 1 and 2 will be taught three units of work a year using and adapting planning from the Design and Technology Association. Units may be taught on a weekly basis but are more often taught in a block, and children will have a DT day. Units of work, wherever possible, will be linked to the topic the children are studying.

SEND/Equal Opportunities

We aim to include children with SEND fully in all Design and Technology sessions, with adult support as necessary. The work is differentiated and, where relevant, related to their profile. More able pupils will be identified and provision will be made for their needs within the classroom.

We aim to ensure that all children regardless of race, gender, physical ability or special needs have access to the DT curriculum.

Cross-Curricular Links

Design and technology has strong links to other subjects within the curriculum. We will seek opportunities to integrate design and technology projects with topics in science, mathematics, art, and computing to enhance cross-curricular learning experiences.

Hygiene and Safety

It is important that children are taught essential life skills to enable them to participate confidently and safely in designing and making in society. Teachers have a duty to introduce children to a wide variety of production processes and the correct tools for the task. Children must design considering health and safety issues and consequences, and operate in a safe and hygienic manner when designing. Teachers should assess any risks posed by an activity and should complete a risk assessment prior to the activity, in accordance with the school policy.

Equipment and Resources

The school continues to build up its bank of resources through departmental budgets. These are stored in the resource room as well as individual departments.

Assessment and Monitoring

At St. Leonard's School, assessment is an integral part of the teaching process. Assessment is used to inform planning and to facilitate differentiation. The assessment of children's work is 6 on-going and formative, based on evidence gathered through observations, discussions, and the evaluation of children's work, to ensure that understanding is being achieved and that progress is being made towards the learning objectives.

Monitoring takes place through sampling children's work, teacher planning and lesson observations, to ensure that the majority of children are working at the expected standard for their age. D&T milestones for each year are to be used by staff to help assess children in each year group. Record keeping will include individual portfolios showcasing children's design work, photographs of their creations, and evidence of their design processes.

Leadership and Management

The role of a Design and Technology Leader is to:

- Develop, implement and update the Design and Technology policy.
- Give support to colleagues, including advice on training courses.
- Keep up to date with developments in Design and Technology and attend relevant courses.
- Monitor Design and Technology within school, in line with the SIP.

- Monitor medium term planning.
- Monitor samples of work on a termly basis and give feedback to staff.
- Create, monitor and evaluate an action plan in line with the SIP.