



# Design Technology Policy 2022

*Our Mission:*

*'To develop responsible, independent individuals who love learning and have the knowledge and attitudes to be successful in an ever changing world'.*





## Design Technology Policy

### Contents Page

Page 3	Mission Statement, Ethos and Beliefs, Core Values
Page 4	Aims and objectives
Page 5	Planning, marking, teaching, health and safety, resources, equal opportunities
Page 6	Coverage- Key Stage 1
Page 7	Coverage Key Stage 2
Page 8	Cooking and nutrition and Early Years
Page 9	SMSC in Design and Technology
Page 10	Risk assessments
Page 11	Risk assessments
Page 12	Marking policy KS1
Page 13	Marking policy KS2
Pages 14-18	Monitoring of teaching and learning



# St. Lawrence Primary School

## Design Technology Policy



### Mission

To develop responsible, independent individuals who (love learning and) have the knowledge and attitudes to be successful in an ever-changing world.

### Ethos and beliefs

School should be about empowering children to be successful in an ever-changing world. By providing rich and memorable learning experiences and engaging our children through hands on activities, we support the development of their skills as well as their knowledge and understanding.

It is important to us that children are able to connect what they do at school to the real world and that they learn how to think creatively and solve problems, both independently and collaboratively. As such, we enable children to take on responsibilities, to make choices about their learning and to find out their own interests and fascinations.

### Core Values

#### Independence:

- We are confident to be unique
- We respect each other inside and out
- We are happy for our own and for each other's successes

#### Responsibility:

- We treat others how we would like to be treated
- We tell the truth
- We care about each other's feelings

#### Success

- We ask questions and figure things out for ourselves
- We listen in a respectful way
- We try our best and learn from our mistakes



# St. Lawrence Primary School

## Design Technology Policy



### **Aims and Objectives**

We live in an increasingly scientific and technological age where children need to acquire the knowledge, skills and attitudes to prepare them for life in the 21st century.

We, at St. Lawrence Primary School believe that the teaching of design technology develops in children collaboration, problem solving and knowledge in design, materials, structures, mechanisms, and electrical control. Children are encouraged to be creative and innovative and are actively encouraged to think about important issues such as sustainability and enterprise.

### **Through our design technology teaching we aim to:**

- Equip children to use themselves as starting points for learning about design technology, and to build on their enthusiasm and natural sense of wonder about the world.
- Raise standards of achievement and attainment in design technology.
- Encourage and enable pupils to offer their own designs, to be creative in their approach to dt, and to gain enjoyment from their dt journey.
- Enable children to develop their skills of co-operation through working with others.
- Encourage children to persevere.
- Support children to acquire and apply knowledge and understanding of materials and components, mechanisms and control systems, structures, existing products, quality and health and safety.



## Design Technology Policy

### Planning

The long- and medium-term science planning can be found in Teacher shared, planning. It is the role of the DT leader to review the long-term plan, which is reviewed annually.

The requirements in the long-term plan are taken from each year group's projects and the Design Technology Jersey Curriculum

It is the responsibility of the class teachers to generate the medium-term plan and weekly plans, which are in line with the long-term planning requirements and therefore have clear learning objectives. It is the role of the DT leader to monitor and advise teachers on medium planning giving feedback and assistance where necessary.

### Teaching of Design Technology

To provide adequate time for developing design technology, skills and understanding, each teacher provides 25 hours per year to the teaching of DT. Each teacher will deliver it as they see fit eg, 1 hour per week for ½ a term or blocks of 2 days. The skills learned in DT also help with learning across the curriculum. Knowledge about the properties of materials helps in science and the practice of measuring accurately helps in maths. These skills help in IT through the children's use of computer control and naturally in art and design.

### Health and Safety

The safe use of equipment and consideration of others is always promoted . Some general risk assessments have been taken from the CLEAPS website (see Appendix ) and read/amended by class teachers when necessary before specific tasks are carried out/ equipment is used. Children are made aware of safety issues and, where appropriate, the reasons behind them. In most cases, dynamic risk assessments are continuously carried out by the class teacher. Activities which take place away from the school's premises require a risk assessment form to be filled in.

### Resources

The school holds a central bank (DT cupboard) of resources. The Design Technology leader is responsible for maintaining this area and ordering any necessary items that have been identified as a need. All staff members are responsible for collecting and returning necessary items to the correct place to ensure that resources are easy for all staff to find.

### Equal opportunities

All children at St. Lawrence School are given equal opportunities in all areas of design technology. We are committed to providing all children with an equal entitlement to DT activities and opportunities regardless of race, gender, culture or class.

### Coverage



## Design Technology Policy

Design and Technology education involves two important elements-learning about the designed and made world and how things work and learning to design and make functional products for purposes and users.

### 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

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

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

#### Make

Select from and use a range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing).

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

#### Evaluate

Explore and evaluate a range of existing products.

Evaluate their ideas and products against design criteria.

#### 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.

### Key Stage 2



## Design Technology Policy

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, culture, enterprise, industry and the wider environment).

Children will be taught:

### **Design**

Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at 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**



# St. Lawrence Primary School



## Design Technology Policy

As part of their work with food, pupils 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.

Pupils should be taught to:

### Key stage 1

Use the basic principles of a healthy and varied diet to prepare dishes.  
Understand where food comes from.

### Key stage 2

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.

### Early years

At Foundation level, Design and Technology is an integral part of learning and is embedded throughout activities and play. At this stage, it is taught within 'Expressive Arts and Design' and 'Knowledge and Understanding of the World.' As the Nursery and Reception classes are part of the Early Years Foundation Stage, we link the learning to the objectives set out in the 'Development Matters 2021' and 'Early Learning Goals (ELGs)' which underpin the curriculum planning for children from birth to age five.





## SMSC in Design and Technology

### Spiritual

Spiritual education in Design and Technology allows pupils the opportunity to exercise imagination, inspiration, intuition and insight through creativity and risk taking in analysing, designing and manufacturing a range of products. It instils a sense of awe, wonder and mystery when studying the natural world or human achievement. Encouraging creativity allows pupils to express innermost thoughts and feelings and to reflect and learn from reflection, for example, asking 'why?', 'how?' and 'where?'.

### Moral

Moral Education in Design Technology gives pupils an awareness of the moral dilemmas created by technologic advances, for example, the effect advanced manufacturing automation has had on employment and how globalisation has caused poverty and inequality in some parts of the world. It encourages pupils to value the environment and its natural resources and to consider the environmental impact of everyday products. It educates pupils to become responsible consumers.

### Social




Social Education in Design Technology provides positive corporate experiences – for example, through industrial visits. It gives opportunities to work as a team, recognising others' strengths and sharing equipment. Design Technology promotes equality of opportunity and provides an awareness of areas that have gender issues e.g. encouraging girls to use equipment that has been traditionally male dominated.

### Cultural

Cultural Education in Design Technology reflects on ingenious products and inventions, the diversity of materials and ways in which design technology can improve the quality of life. It investigates how different cultures have contributed to technology and reflects on products and inventions, the diversity of materials and ways in which design can improve the quality of our lives.




### Appendix 1:

<div>CLEARSS</div> <div>STUDENT SAFETY SHEETS</div> <div>10</div> <div>Electricity</div>		
Situation	Hazard	Comment
<b>Electric power distribution</b> 230 V ac and above at high currents (over 5 mA).	 ELECTRIC SHOCK / BURN	<i>In non-school contexts:</i> over-head power lines and local sub-stations could cause accidents if children behave foolishly.
<b>Home and school</b> Above 28 V ac or 40 V dc and at currents over 5 mA. This includes the 230 V ac mains supply.	 ELECTRIC SHOCK / BURN	<i>In school science:</i> problems may arise from terminals of high voltage (high tension, HT) supplies or low-voltage units with an HT outlet (as some supply 150 mA); also in activities involving electrophoresis, model transformers or conductivity of molten glass. <i>In non-school contexts:</i> problems arise due to poor insulation (damaged wiring and plugs), incorrect wiring, over-loaded circuits, poor earthing or vandalism.
<b>School science investigations</b> Less than 28 V ac or 40 V dc and at currents over 5 mA. This includes almost all work with batteries in school or elsewhere.	LOW ELECTRICAL HAZARD  TOXIC / CORROSIVE	Most school circuit work, including electrolysis, is in this category (although problems could arise if currents over 10 A were used). Some cells, batteries and accumulators contain TOXIC or CORROSIVE materials.
<b>Everywhere: eg, static electricity</b> Any voltages at very low currents (well below 5 mA)	LOW HAZARD	Examples include the van de Graaff generator (but <b>not</b> induction coils which may give over 5 mA). Electronic equipment nearby may be damaged by static discharges or electromagnetic fields.
<b>Typical control measures to reduce risk</b>		
<ul style="list-style-type: none"> <li>Use the lowest voltage possible (and, for electrolysis, the lowest current and concentration that gives good results).</li> <li>Avoid exposed conductors which are live above 28 V.</li> <li>Avoid the possibility of water coming into contact with conductors which are live above 28 V.</li> <li>Check that primary and secondary insulation (ie, both layers of plastic coating) are in good condition.</li> <li>Avoid over-loaded circuits, too many plugs in one socket, etc.</li> <li>Check that plugs are correctly wired with appropriate fuses.</li> <li>Ensure good earth connections where necessary.</li> </ul>		
<b>Assessing the risks</b>		
<ul style="list-style-type: none"> <li><i>What are the details of the activity to be undertaken? What are the hazards?</i></li> <li><i>What is the chance of something going wrong?</i>                Eg, Accidentally touching a live component through poor design or poor maintenance.</li> <li><i>How serious would it be if something did go wrong?</i>                Eg, Could a current flow through the heart? How large a voltage and/or current?</li> <li><i>How can the risk(s) be controlled for this activity?</i>                Eg, Can it be done safely? Does the procedure need to be altered?</li> </ul>		
<b>Emergency action</b>		
<ul style="list-style-type: none"> <li><b>Electric shock</b></li> </ul>	<b>Take care for your own safety.</b> Break contact by switching off or removing the plug. If this is not possible, use a wooden broom handle or wear rubber gloves to pull the casualty clear. See a doctor. If the casualty is unconscious, check that airways are clear and that the casualty is breathing and has a pulse. If so, place the casualty in the 'recovery position'. If a pulse is found but the casualty is not breathing, artificial ventilation is necessary. If no pulse is found and the casualty is not breathing, cardio-pulmonary resuscitation is necessary.	



## Design Technology Policy

<p><b>Key Stage One Design Technology</b></p> <p>Work is always in pencil. Erasers may be used under teacher guidance. Children should use their first name when working on paper.</p> <p>Children use sketchbooks.</p>	<p>A line guide may be used with plain paper.</p> <p>Work is dated.</p> <p>A title is written when appropriate and underlined using a ruler by the end of Year Two.</p> <p>Children edit their work where appropriate using a coloured pencil.</p>
<p><b>Key Stage One Marking Code</b></p> <p><b>U /I</b>    <b>unaided</b></p> <p><b>A</b>        <b>aided</b></p> <p><b>D</b>        <b>discussed and verbal feedback given</b></p> <p><b>S</b>        <b>supply teacher</b></p> <p><b>T</b>        <b>target</b></p> <p> To highlight or draw attention to an error</p>	<p>✓            this is correct, a good point</p> <p>?            I do not understand this.</p> <p>^            a word or an idea is missing</p> <p>sp          spelling mistake</p> <p>Two or three times a week, children colour code their work according to how successful they feel they have been.</p> <p>Colours:</p> <p><b>Red</b> = I'm in the learning pit and I need more help</p> <p><b>Yellow</b> = I'm getting there and I need some more practise</p> <p><b>Green</b> = I'm confident with this</p> <p><b>Blue</b> = I'm ready to coach a partner on this</p>



<p><b>Key Stage 2 Design Technology</b></p> <p>Crossing out is allowed but only one single line should be used.</p> <p>Erasers are used when appropriate.</p> <p>Children use sketch books.</p> <p>Writing will be in handwriting pen/pencil.</p> <p>Diagrams, designs, sketches and tables should be drawn in pencil.</p> <p>Work is dated using the short date format</p> <p>Learning question is used eg: Can I , What will happen if</p> <p>Overview of each unit is stuck in at the beginning of each topic.</p>	<p><b>Key Stage Two Marking Code</b></p> <p>● you have made a mistake</p> <p>✓ this is correct, a good point</p> <p>✓ ✓ excellent idea, well done</p> <p>? I do not understand this.</p>
<p><b>Things to think about</b></p> <p>Ensure all marking relates to the learning question.</p> <p>Encourage children to extend their original answers eg: Why? What would happen if?</p> <p>Underline specific language spelt incorrectly</p>	<p>S supply teacher</p> <p>D discussed with teacher</p> <p>T target</p> <p>U/I unaided</p> <p>A aided</p>



## Design Technology Policy

### Monitoring of Teaching and Learning

We recognise that the most effective way to develop practice is to provide developmental feedback to staff. All monitoring is undertaken to promote professional development and to quality assure the practice across the school. We conduct a range of monitoring activities in order to create a full and accurate picture of the teaching and learning. Monitoring activities are undertaken by leaders, the School Advisor and other external consultants. Monitoring activities are used to inform whole school development planning and to set targets for teachers.

### Book scrutiny pro forma

Year	Presentation			Standards			Marking			Assessment				
	consistently good: handwriting follows	Books: well-kept and neat.	and neatly stuck in. Not overused.	Quality of learning: ARE/ matches level of child	Quantity of learning produced	Learning Intentions: appropriate match	Checklists/SC: match learning intention	Follows policy: codes	Evidence of continuing teacher/ pupil dialogue through impact evident, with clear 'Next Steps, giving advice to improve	Pupils consistently respond to marking	met by both teacher/ pupil- cross referencing of targets	Self- assessment is evident. Success Criteria used	Evidence of peer- assessment Success Criteria used	Evidence of children editing.
R														
1														
2														
3														
4														
5														
6														
FS development points														
KS1 development points														
KS2 development points														





### Pupil conference pro forma

Year Group:	Date:	Lead:			
Teaching	Learning	Environment	Curriculum	Wider School	
<p>What does your teacher do to help you in class?</p> <p>Show an example of when your teacher's comments helped you.</p> <p>Tell me about your favourite lesson this week. Why?</p> <p>How does your teacher help you to reach your targets?</p>	<p>Show me a piece of learning that you are most proud of. Why?</p> <p>Show me where you have responded to your teacher's comments.</p> <p>What have you found challenging? Why?</p> <p>What are your current targets?</p> <p>What do you need to do to improve?</p> <p>How do you like to learn?</p>	<p>What resources help you in your learning?</p> <p>How do use the learning walls in your learning?</p> <p>What helps you with your learning?</p> <p>When do you work with others in class?</p>	<p>What's your favourite subject? Why?</p> <p>What do you think you are best at/ least good at?</p> <p>What topic have you found most interesting this year?</p> <p>What do you find most boring, why?</p> <p>What topics would you like to learn about?</p>	<p>Do you feel safe in school? Why?</p> <p>Who helps you in school?</p> <p>What would you do if you didn't feel safe or felt upset about something?</p> <p>Name 1 thing that would make our school a better place.</p> <p>What do you most enjoy about coming to school?</p>	
FS development points					
KS1 development points					
KS2 development points					



### Learning Environment pro forma

Use of Space and furniture	Learning Areas & Resources	Display	Behaviours
<p>Effective and creative use of space to support all groups (whole class, small group etc)</p> <p>Space is adapted according to different learning tasks</p> <p>Children have space to move around freely – to access resources</p> <p>Space for children to sit and access IWB as whole class session.</p>	<p>Stimulating, multilingual lit/num/resource areas.</p> <p>Book Corner is inviting has author focus or theme. Front facing books. Creative display for books. Books stored in genre etc. Interactive resources on display for children to access.</p> <p>High quality resources organised effectively and labelled.</p> <p>Children encouraged to take responsibility for resources and they choose resources when needed.</p> <p>Children responsible for managing resources.</p> <p>Resources accessible to pupils.</p>	<p>Pupils' learning celebrated on displays, including drafts or quotes used to show process.</p> <p>Handwriting is of high quality and well edited to ensure no mistakes.</p> <p>Interactive displays</p> <p>Pupils' diversity celebrated through their learning outcomes.</p> <p>Learning walls up to date, stimulating and used by pupils. Teacher &amp; Pupil models and clear success criteria.</p> <p>2D and 3D displays used to motivate, engage and foster thinking. Including wall and table displays.</p> <p>Captions (typed or hand written, describe LI and context.</p>	<p>Behaviour displays in place and used effectively</p> <p>Quality first teaching consistently challenges children to be the best they can be and is part of whole class ethos.</p> <p>Children follow the Behaviour Expectations and understand their roles and responsibilities as part of school and class community.</p> <p>AfL is prominent in the dialogue and actions of pupils. All pupils are involved in peer and self evaluation daily.</p>
FS development points			



## Design Technology Policy

KS1 development points			
KS2 development points			

### Lesson Observation pro forma

Observers:

Teacher:	Learning Intention:	Year Group:	Date:
Additional adults:			Time:

Professional Dialogue (following observation):

Main points from discussion

Target	Actions to be taken by staff member	Timeframe
1.	▪	
2.	▪	
3.	▪	





# St. Lawrence Primary School

## Design Technology Policy



Signed Teacher:

Signed Observers:

Version	Date Issued	Issued by	Reason for Change	Presented To (initials to agree policy has been read and understood)	Approved by:	Date
0.1	April 18	Amory Charlesworth	Draft			
0.2	Sept 18	SLT	2 <sup>nd</sup> draft			
0.3						