



# **St Luke's C.E. Primary School**

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## **DT Policy**

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**Langport Avenue**

**Longsight**

**Manchester**

**M12 4NG**

## **PURPOSE**

**The Curriculum at St Luke's is adapted to be a vocabulary rich, enquiry based curriculum; with a focus on improving pupils long and short term memory to improve accuracy and fluency of children's grasp of knowledge and skills; in order for learning to be progressional and for all children to be confident fluent readers. The curriculum is designed to secure and build up skills from the early years to end of key stage 2.**

The **Design and Technology (DT)** meets the needs of the [National Curriculum 2014](#) programmes of study as units of knowledge and skills.

This is further deepened, enhanced and supported by additional experiences, opportunities, resources in the form of the **Enrichment curriculum** and **The Global Citizen and Mental Wellbeing curriculum**.

### **Structure**

- INTENT
- IMPLEMENTATION
- IMPACT

## **SECTION 1 - INTENT**

### **AIMS**

At St Luke's, we believe that Design and Technology (DT) is important because it encourages pupils to learn, to think and intervene creatively to solve problems both as individuals and as members of a team. Children develop technical understanding and making skills, learn about design methods and investigate their environment and the materials around them. It builds up from learning in the EYFS. The nature of design and technology is such that it should provide opportunities for pupils to engage in activities that are challenging, relevant and motivating. This should give pupils enjoyment, satisfaction and a sense of purpose. Overall it will provide a vehicle for personal development allowing children to explore, reflect, evaluate, improve on their learning as well as the work of others, giving them a concrete experience.

### **TARGETS**

Throughout their education at St Luke's, children will learn to develop DT skills previously learnt in earlier years and expand on these skills to design, create and review in more depth as they move through infants to juniors. The key skills that

children will learn and develop during DT sessions will be:

- to research and analysis existing products in order to inform their design choices.
- to develop imaginative thinking to enable them to talk about what they like and dislike when designing and making.
- to talk about how things work, and to draw and model their ideas.
- to select appropriate tools and techniques for making a product, whilst following safe procedures, to cut, shape, join and finish designs.
- to explore attitudes towards the made world and how we live and work within it.
- to develop an understanding of technological processes, products, and their manufacture, and their contribution to our society.
- to understand and apply the principles of a healthy diet.
- to understand where food comes from and the issues of seasonality.

## RATIONALE

The DT curriculum is based upon the EYFS framework and the National Curriculum targets and skills, in conjunction with original QCA documentation. The Design and Technology leader has developed a structured progression of skills by carefully selecting topics throughout each year group. These topics and skills are listed in the table below and the progression of skills highlighted in colour:

Red – mechanisms, blue – electronics, green – food, yellow – textiles, purple – structures

	Autumn	Spring	Summer
Nursery	<p>Topic 1 Ourselves – Who am I?</p> <p>Topic 2 Traditional Tales – What makes a good and bad character?</p> <p>Topic 3 Under the Sea – Why can't I live under the sea?</p> <p>Topic 4 Dinosaurs – What makes each dinosaur different?</p> <p>Topic 5 Food and Drink – Where does food come from?</p> <p>Topic 6 Animals – How are baby animals born in different habitats?</p> <p><b>Ongoing:</b></p> <ul style="list-style-type: none"> <li>• Explore different materials freely, to develop their ideas about how to use them and what to make. (EAD)</li> <li>• Develop their own ideas and then decide which materials to use to express them. (EAD)</li> </ul>		

	<ul style="list-style-type: none"> <li>• Join different materials and explore different textures. (EAD)</li> <li>• Use one-handed tools and equipment, for example, making snips in paper with scissors. (PD)</li> </ul> <p>Cooking and nutrition: fruit, vegetables, biscuit, noodles, pancakes, pasta</p>		
Reception	<p>Topic 1 Ourselves – Who is a family?</p> <p>Topic 2 Festivals and celebrations – How do we Celebrate?</p> <p>Topic 3 Transport and Travel – Which mode of transport is best?</p> <p>Topic 4 Lifecycles and change – How have I changed?</p> <p>Topic 5 Superheroes – Who helps me?</p> <p>Topic 6 Our planet – What is life like around the planet?</p> <p><b>Ongoing:</b></p> <ul style="list-style-type: none"> <li>• Explore, use and refine a variety of artistic effects to express their ideas and feelings. (EAD)</li> <li>• Return to and build on their previous learning, refining ideas and developing their ability to represent them. (EAD)</li> <li>• Create collaboratively, sharing ideas, resources and skills. (EAD)</li> <li>• Develop their small motor skills so that they can use a range of tools competently, safely and confidently. Suggested tools: pencils for drawing and writing, paintbrushes, scissors, knives, forks and spoons. (PD)</li> </ul> <p>Cooking and nutrition: fruit, vegetables fruit, biscuit, noodles, pancakes, pasta</p>		
Year 1	<p><b>Playgrounds - What are playgrounds like around the world?</b></p> <ul style="list-style-type: none"> <li>- cutting (sturdy materials, e.g. cardboard), shaping, joining (water based adhesive)</li> <li>- selecting materials for a purpose</li> </ul>	<p><b>Eat More Fruit and Vegetables - What fruit and vegetables should we take on a teddy bear's picnic?</b></p> <ul style="list-style-type: none"> <li>- understanding where food comes from</li> <li>- selecting ingredients to design a healthy meal</li> </ul>	<p><b>Moving Pictures - What can I use to make a picture move?</b></p> <ul style="list-style-type: none"> <li>- levers, sliders</li> <li>- cutting (paper, card), joining (paper fasteners, glue)</li> </ul>
Year 2	<p><b>Puppets - Why do people make and use puppets?</b></p> <ul style="list-style-type: none"> <li>- cutting (fabric), joining (sewing, knitting, fabric)</li> </ul>		<p><b>Vehicles - Moving Vehicles: What makes vehicles move?</b></p> <ul style="list-style-type: none"> <li>- wheels and axles</li> <li>- design using IT (paint)</li> </ul>

	<p>adhesive) - selecting materials for a purpose</p>		
Year 3	<p><b>Packaging - How should we design and package our product to appeal to the target audience?</b> -cut (a range of shapes in selected material), shape, join for a specific purpose (solvent based adhesive) -research and select materials for a purpose - design using IT (word processing/graphics programme)</p>	<p><b>Sandwich Snacks - Which sandwich best represents Britain?</b> - understand where and how a variety of ingredients are grown, reared, caught and processed - consider different factors when cooking, e.g. cooking for a vegetarian, gluten free, etc.</p>	<p><b>Moving Monsters - How might a monster defend a hillfort?</b> - levers &amp; linkages, sliders, wheels, axles, cams (circular), gears and fixed pulleys -cut (card, plastic sheets, etc.), shape, join for a specific purpose (lower temperature glue gun)</p>
Year 4	<p><b>Money Containers - Was carrying money easier in Medieval times?</b>  - research and select materials for a purpose - cutting (fabric), joining (sewing, knitting, fabric adhesive), fabric design tools to finish</p>	<p><b>Lighting it Up - Can we model with light?</b> - switches, bulbs, buzzers, motors to create light - research using IT</p>	<p><b>Storybooks - How can you make a picture book come to life?</b> - linkages, levers -cut (a range of shapes in selected material using craft knives), shape, join for a specific purpose - design using word or graphic design program</p>
Year 5	<p><b>Moving Toys - How can we build a moving toy that doesn't need batteries?</b> - cams (shaped and off-centre wheels), gears, moveable pulleys -cut (bench tools, drills, etc.), shape, join for a specific purpose (hot glue)</p>		<p><b>Musical Instruments - How can musical instruments be cost effective and functional?</b> - research and develop design using IT - research and select materials for a purpose - cut (hard materials, e.g. wood, clay), shape, join (synthetic resin adhesive, hot glue)</p>
Year 6	<p><b>Stain glass biscuits - Stained Glass Biscuits: Treats, decorations or both?</b> -design packaging for cookie - find suitable ingredients to create the stain glass</p>		<p><b>Slippers - How do I make footwear fit for an Ancient Greek?</b> - design on a computer programme - explore materials for design and texture - cutting (fabric), joining</p>

	effect -discuss different marketing strategies		(sewing, knitting, fabric adhesive), fabric design tools to finish
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Each topic is specifically chosen to develop children’s DT skills throughout their journey through St Luke’s. The colour coded table briefly states the skills that will be taught in each topic and how these skills are built on throughout the years. The information below is more detail about how children will progress and develop their skills in the five areas of DT throughout key stages 1 and 2.

**Designing:**

When designing, children need to understand the context they are working in, think about who their products will be for and decide what tasks they will perform. They need opportunities to generate, develop, model and communicate ideas in a variety of ways, including spoken language, drawings, templates, mock-ups, prototypes and pattern pieces.

<b>Designing</b>	<b>EYFS</b>	<b>Key Stage 1</b>	<b>Key Stage 2</b>
<b>Understanding contexts, users and purposes</b>	<p>In EYFS pupils begin to:</p> <ul style="list-style-type: none"> <li>• Explore how things work (3-4)</li> <li>• Recognise some environments that are different from the one in which they live. (R)</li> <li>• Explore the natural world around them (R)</li> </ul>	<p>Across KS1 pupils should:</p> <ul style="list-style-type: none"> <li>• work confidently within a range of contexts, such as imaginary, story-based, home, school, gardens, playgrounds, local community, industry and the wider environment</li> <li>• state what products they are designing and making</li> <li>• say whether their products are for themselves or other users</li> <li>• describe what their products are for</li> <li>• say how their products will work</li> <li>• say how they will make their products suitable for their intended users</li> <li>• use simple design</li> </ul>	<p>Across KS2 pupils should:</p> <ul style="list-style-type: none"> <li>• work confidently within a range of contexts, such as the home, school, leisure, culture, enterprise, industry and the wider environment</li> <li>• describe the purpose of their products</li> <li>• indicate the design features of their products that will appeal to intended users</li> <li>• explain how particular parts of their products work</li> </ul> <p>In early KS2 pupils should also:</p> <ul style="list-style-type: none"> <li>• gather information about the needs and wants of particular individuals and groups</li> <li>• develop their own design criteria and use these to inform their ideas</li> </ul> <p>In late KS2 pupils should also:</p> <ul style="list-style-type: none"> <li>• carry out research, using surveys, interviews, questionnaires and web-</li> </ul>

		criteria to help develop their ideas	based resources <ul style="list-style-type: none"> <li>• identify the needs, wants, preferences and values of particular individuals and groups</li> <li>• develop a simple design specification to guide their thinking</li> </ul>
<b>Generating, developing, modelling and communicating ideas</b>	In EYFS pupils begin to: <ul style="list-style-type: none"> <li>• Choose the right resources to carry out their own plan. (3-4)</li> <li>• Explore collections of materials with similar and/or different properties. (3-4)</li> <li>• Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park. (3-4)</li> <li>• Explore, use and refine a variety of artistic effects to express their ideas and feelings. (R)</li> <li>• Create collaboratively, sharing ideas, resources and skills. (R)</li> </ul>	Across KS1 pupils should: <ul style="list-style-type: none"> <li>• generate ideas by drawing on their own experiences</li> <li>• use knowledge of existing products to help come up with ideas</li> <li>• develop and communicate ideas by talking and drawing</li> <li>• model ideas by exploring materials, components and construction kits and by making templates and mock-ups</li> <li>• use information and communication technology, where appropriate, to develop and communicate their ideas</li> </ul>	Across KS2 pupils should: <ul style="list-style-type: none"> <li>• share and clarify ideas through discussion</li> <li>• model their ideas using prototypes and pattern pieces</li> <li>• use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas</li> <li>• use computer-aided design to develop and communicate their ideas</li> </ul> <p>In early KS2 pupils should also:</p> <ul style="list-style-type: none"> <li>• generate realistic ideas, focusing on the needs of the user</li> <li>• make design decisions that take account of the availability of resources</li> </ul> <p>In late KS2 pupils should also:</p> <ul style="list-style-type: none"> <li>• generate innovative ideas, drawing on research</li> <li>• make design decisions, taking account of constraints such as time, resources and cost</li> </ul>

### **Making:**

When making, children should select from a range of tools and equipment, explaining their choices. They also need opportunities to choose the materials and components they will use, thinking about their working characteristics. They should follow procedures for safety and hygiene and develop a repertoire of practical skills and techniques, working with increasing accuracy.

<b>Making</b>	<b>EYFS</b>	<b>Key Stage 1</b>	<b>Key Stage 2</b>
<b>Planning</b>	In EYFS pupils begin to: <ul style="list-style-type: none"> <li>• Select and use activities and resources, with help when needed. This helps them to achieve a goal they have chosen, or one which is suggested to them. (3-4)</li> <li>• Use all their senses in hands-on exploration</li> </ul>	Across KS1 pupils should: <ul style="list-style-type: none"> <li>• plan by suggesting what to do next</li> <li>• select from a range of tools and equipment, explaining their choices</li> <li>• select from a range of materials and components according to their characteristics</li> </ul>	Across KS2 pupils should: <ul style="list-style-type: none"> <li>• select tools and equipment suitable for the task</li> <li>• explain their choice of tools and equipment in relation to the skills and techniques they will be using</li> <li>• select materials and components suitable for the task</li> <li>• explain their choice of materials and components according to functional properties and aesthetic qualities</li> </ul>

	<p>of natural materials. (3-4)</p> <ul style="list-style-type: none"> <li>• Explore and talk about different forces they can feel. (3-4)</li> <li>•</li> </ul>		<p>In early KS2 pupils should also:</p> <ul style="list-style-type: none"> <li>• order the main stages of making</li> </ul> <p>In late KS2 pupils should also:</p> <ul style="list-style-type: none"> <li>• produce appropriate lists of tools, equipment and materials that they need</li> <li>• formulate step-by-step plans as a guide to making</li> </ul>
<b>Practical skills and techniques</b>	<p>In EYFS pupils begin to:</p> <ul style="list-style-type: none"> <li>• Use one-handed tools and equipment, for example, making snips in paper with scissors. (3-4)</li> <li>• Use a comfortable grip with good control when holding pens and pencils. (3-4)</li> <li>• Join different materials and explore different textures. (3-4)</li> <li>• Develop their small motor skills so that they can use a range of tools competently, safely and confidently. Suggested tools: pencils for drawing and writing, paintbrushes, scissors, knives, forks and spoons.(R)</li> </ul>	<p>Across KS1 pupils should:</p> <ul style="list-style-type: none"> <li>• follow procedures for safety and hygiene</li> <li>• use a range of materials and components, including construction materials and kits, textiles, food ingredients and mechanical components</li> <li>• measure, mark out, cut and shape materials and components</li> <li>• assemble, join and combine materials and components</li> <li>• use finishing techniques, including those from art and design</li> </ul>	<p>Across KS2 pupils should:</p> <ul style="list-style-type: none"> <li>• follow procedures for safety and hygiene</li> <li>• use a wider range of materials and components than KS1, including construction materials and kits, textiles, food ingredients, mechanical components and electrical components</li> </ul> <p>In early KS2 pupils should also:</p> <ul style="list-style-type: none"> <li>• measure, mark out, cut and shape materials and components with some accuracy</li> <li>• assemble, join and combine materials and components with some accuracy</li> <li>• apply a range of finishing techniques, including those from art and design, with some accuracy</li> </ul> <p>In late KS2 pupils should also:</p> <ul style="list-style-type: none"> <li>• accurately measure, mark out, cut and shape materials and components</li> <li>• accurately assemble, join and combine materials and components</li> <li>• accurately apply a range of finishing techniques, including those from art and design</li> <li>• use techniques that involve a number of steps</li> <li>• demonstrate resourcefulness when tackling practical problems</li> </ul>

### Evaluating:

When evaluating, children should make increasingly sophisticated judgements about their own ideas and products against design criteria. They should consider the views of others in order to improve their work. They should also investigate and evaluate existing products using a variety of questioning techniques and, in KS2, learn about important inventors and their inventions.

<b>Evaluating</b>	<b>EYFS</b>	<b>Key Stage 1</b>	<b>Key Stage 2</b>
<b>Own ideas and products</b>	<p>In EYFS pupils begin to learn about:</p> <ul style="list-style-type: none"> <li>• Talk about the differences between</li> </ul>	<p>Across KS1 pupils should:</p> <ul style="list-style-type: none"> <li>• talk about their design ideas and what they are making</li> <li>• make simple judgements about their products and ideas against design criteria</li> <li>• suggest how their products</li> </ul>	<p>Across KS2 pupils should:</p> <ul style="list-style-type: none"> <li>• identify the strengths and areas for development in their ideas and products</li> <li>• consider the views of others, including intended users, to improve their work</li> </ul> <p>In early KS2 pupils should also:</p>



	<p>materials and changes they notice. (3-4)</p> <ul style="list-style-type: none"> <li>Return to and build on their previous learning, refining ideas and developing their ability to represent them (R)</li> </ul>	could be improved	<ul style="list-style-type: none"> <li>refer to their design criteria as they design and make</li> <li>use their design criteria to evaluate their completed products</li> </ul> <p>In late KS2 pupils should also:</p> <ul style="list-style-type: none"> <li>critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make</li> <li>evaluate their ideas and products against their original design specification</li> </ul>
<b>Existing products</b>	<p>In EYFS pupils begin to learn about:</p> <ul style="list-style-type: none"> <li>Be able to express a point of view and to debate when they disagree with an adult or a friend, using words as well as actions. (3-4)</li> <li>Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen.(R)</li> </ul>	<p>Across KS1 pupils should explore:</p> <ul style="list-style-type: none"> <li>what products are</li> <li>who products are for</li> <li>what products are for</li> <li>how products work</li> <li>how products are used</li> <li>where products might be used</li> <li>what materials products are made from</li> <li>what they like and dislike about products</li> </ul>	<p>Across KS2 pupils should investigate and analyse:</p> <ul style="list-style-type: none"> <li>how well products have been designed</li> <li>how well products have been made</li> <li>why materials have been chosen</li> <li>what methods of construction have been used</li> <li>how well products work</li> <li>how well products achieve their purposes</li> <li>how well products meet user needs and wants</li> </ul> <p>In early KS2 pupils should also investigate and analyse:</p> <ul style="list-style-type: none"> <li>who designed and made the products</li> <li>where products were designed and made</li> <li>when products were designed and made</li> <li>whether products can be recycled or reused</li> </ul> <p>In late KS2 pupils should also investigate and analyse:</p> <ul style="list-style-type: none"> <li>how much products cost to make</li> <li>how innovative products are</li> <li>how sustainable the materials in products are</li> <li>what impact products have beyond their intended purpose</li> </ul>
<b>Key events and individuals</b>	Not a requirement in EYFS	Not a requirement in KS1	<p>Across KS2 pupils should know:</p> <ul style="list-style-type: none"> <li>about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products</li> </ul>

### Technical knowledge:

Technical knowledge is the body of knowledge and understanding that is specific to design and technology that needs to be developed and then applied when children are designing, making and evaluating products.

Technical knowledge	EYFS	Key Stage 1	Key Stage 2
<b>Making products work</b>	<p>In EYFS pupils begin to learn about:</p> <ul style="list-style-type: none"> <li>• Make comparisons between objects relating to size, length, weight and capacity. (3-4)</li> <li>• Select shapes appropriately: flat surfaces for building, a triangular prism for a roof, etc. (3-4)</li> <li>• Combine shapes to make new ones – an arch, a bigger triangle, etc. (3-4)</li> <li>• Select, rotate and manipulate shapes to develop spatial reasoning skills (R)</li> <li>• Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can.(R)</li> <li>• Compare length, weight and capacity. (R)</li> </ul>	<p>Across KS1 pupils should know:</p> <ul style="list-style-type: none"> <li>• about the simple working characteristics of materials and components</li> <li>• about the movement of simple mechanisms such as levers, sliders, wheels and axles</li> <li>• how freestanding structures can be made stronger, stiffer and more stable</li> <li>• that a 3-D textiles product can be assembled from two identical fabric shapes</li> <li>• that food ingredients should be combined according to their sensory characteristics</li> <li>• the correct technical vocabulary for the projects they are undertaking</li> </ul>	<p>Across KS2 pupils should know:</p> <ul style="list-style-type: none"> <li>• how to use learning from science to help design and make products that work</li> <li>• how to use learning from mathematics to help design and make products that work</li> <li>• that materials have both functional properties and aesthetic qualities</li> <li>• that materials can be combined and mixed to create more useful characteristics</li> <li>• that mechanical and electrical systems have an input, process and output</li> <li>• the correct technical vocabulary for the projects they are undertaking</li> </ul> <p>In early KS2 pupils should also know:</p> <ul style="list-style-type: none"> <li>• how mechanical systems such as levers and linkages or pneumatic systems create movement</li> <li>• how simple electrical circuits and components can be used to create functional products</li> <li>• how to program a computer to control their products</li> <li>• how to make strong, stiff shell structures</li> <li>• that a single fabric shape can be used to make a 3D textiles product</li> <li>• that food ingredients can be fresh, pre-cooked and processed</li> </ul> <p>In late KS2 pupils should also know:</p> <ul style="list-style-type: none"> <li>• how mechanical systems such as cams or pulleys or gears create movement</li> <li>• how more complex electrical circuits and components can be used to create functional products</li> <li>• how to program a computer to monitor changes in the environment and control their products</li> <li>• how to reinforce and strengthen a 3D framework</li> <li>• that a 3D textiles product can be made from a combination of fabric shapes</li> <li>• that a recipe can be adapted by adding or substituting one or more ingredients</li> </ul>

### **Cooking and nutrition:**

Cooking and nutrition provides opportunities for children to learn about where food comes from, how food is grown, reared or caught and the effect of seasonality on the availability of food. They also learn about the principles of healthy eating and how to prepare and cook dishes safely and hygienically using a range of techniques.

Cooking and nutrition is taught alongside designing and making within a D&T food project.

Cooking and	EYFS	Key Stage 1	Key Stage 2
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<b>nutrition</b>			
<b>Where food comes from</b>	<p>In EYFS pupils begin to learn about:</p> <ul style="list-style-type: none"> <li>• food coming from animals or plants.</li> <li>• different types of food involved in celebrating festivals (Chinese New Year, pancake day)</li> </ul>	<p>Across KS1 pupils should know:</p> <ul style="list-style-type: none"> <li>• that all food comes from plants or animals</li> <li>• that food has to be farmed, grown elsewhere (e.g. home) or caught</li> </ul>	<p>Across KS2 pupils should know:</p> <ul style="list-style-type: none"> <li>• that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world</li> </ul> <p>In late KS2 pupils should also know:</p> <ul style="list-style-type: none"> <li>• that seasons may affect the food available</li> <li>• how food is processed into ingredients that can be eaten or used in cooking</li> </ul> <p>Across KS2 pupils should know:</p> <ul style="list-style-type: none"> <li>• how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source</li> <li>• how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking</li> </ul>
<b>Food preparation, cooking and nutrition</b>	<p>In EYFS pupils begin to learn about:</p> <ul style="list-style-type: none"> <li>• healthy/unhealthy food (fruit and vegetables)</li> <li>• the importance of hygiene when cooking with particular emphasis on hand washing.</li> <li>• develop skills in cutting and peeling.</li> <li>• Know and talk about the different factors that support their overall health and wellbeing.</li> </ul>	<p>Across KS1 pupils should know:</p> <ul style="list-style-type: none"> <li>• how to name and sort foods into the five groups in The Eatwell Guide</li> <li>• that everyone should eat at least five portions of fruit and vegetables every day</li> <li>• how to prepare simple dishes safely and hygienically, without using a heat source</li> <li>• how to use techniques such as cutting, peeling and grating</li> </ul>	<p>In early KS2 pupils should also know:</p> <ul style="list-style-type: none"> <li>• that a healthy diet is made up from a variety and balance of different food and drink, as depicted in The Eatwell Guide</li> <li>• that to be active and healthy, food and drink are needed to provide energy for the body</li> </ul> <p>In late KS2 pupils should also know:</p> <ul style="list-style-type: none"> <li>• that recipes can be adapted to change the appearance, taste, texture and aroma</li> <li>• that different food and drink contain different substances – nutrients, water and fibre – that are needed for health</li> </ul>

## **INCLUSION**

All children are encouraged to participate in DT sessions at St Luke's. Special provisions will be made for individual children, where appropriate, to ensure they can access the full curriculum in line with the Accessibility, Global Citizen and Wellbeing and SEND Policies.

**[Equality Act 2010](#) – with a particular regard to protected characteristics and to ensure all pupils get the highest quality of provision and opportunities.**

Our school primarily has children from EAL backgrounds 90%+, we also have children who have SEND, at St Luke's we strive to have an inclusive curriculum suitable for everyone. For those who need extra support we provide opportunities in lessons such as:

- Talk for learning
- Differentiated groups
- Mixed ability groups
- Using pair work
- Using questioning to promote thinking
- Monitoring and giving feedback
- Teacher/t.a led groups
- Assessing progress and performance

## **READING**

Reading has the highest priority in our school:

The ability to read and comprehend fluently impacts on pupil's ability to access DT and to attain and achieve to their maximum potential.

Poor reading skills are a limiting factor to pupil's future life chances and the ability to deepen and widen their understanding of DT.

### **Suggested list of books to help develop children's DT skills in primary school:**

Children's First Cookbook: Have Fun in the Kitchen, Annabel Karmel  
Complete Children's Cookbook, DK

Look Inside How Things Work:1, Rob Lloyd Jones  
Look Inside Things That Go, Rob Lloyd Jones

365 Things to Make and Do, Fiona Watt  
365 Things to Do with Paper and Cardboard, Fiona Watt

My First Sewing Book, Susan Akass  
My First Sewing Machine Book, Alison McNicol

A Beginner's Guide to Circuits, Oyvind Nydal Dahl  
Electronics for Kids, Oyvind Nydal Dahl

## **VOCABULARY**

Key vocabulary to be used during DT sessions throughout the school:

function	join	mechanism	design	equipment
practical	template	draw	cut	tool
develop	shape	mock-up	material	computer
textile	build	finish	evaluate	cooking
ingredient	recipe	make	model	structure
product	construct	connect	light	circuit

Specific vocabulary to be used in each topic is outlined in the yearly overviews for each year group.

### **OUT OF SCHOOL LEARNING**

Children may receive DT homework based on their current topic. Please see class pages for topic homework and apps/links.

Children of St Luke’s can also use their purple mash login at home to access a number of programs that can help to improve their designing skills.

### **REPORTING**

The curriculum policy and overview will be available for parents and governors to read on the school website so that they can track the DT topic the children are learning at any time.

At the end of each year a written report is given to parents about their child’s achievements in DT.

## **SECTION 2 – IMPLEMENTATION**

### **PEDAGOGY**

At our school we have formed an enquiry-based curriculum. In order to explore, experiment and deepen their knowledge, children will be asked a key question at the beginning of each topic. This will encourage them to research and build on their previous knowledge and skills throughout the topic in order to create a final piece. The DT coordinator, in liaison with class teachers, has devised key questions, making cross curricula links, which will be asked at the beginning of each DT topic for each year group. The structure of each lesson is as follows:

1. Prior learning opportunities – remind, refine and rehearse
2. Modelling/content/activity – challenge/concrete learning
3. Questioning and feedback

### **ORGANISATION:**

The school operates on a two-week timetable. DT is taught every two weeks for years 1-6. In EYFS DT skills are beginning to develop from nursery to reception, children are presented with daily opportunities to develop DT skills throughout the year.

In Years 1, 3 and 4, DT will be taught one afternoon every two weeks for one term, they will be doing three topics across the academic year. In Years 2, 5, and 6 DT topics will be taught twice a year in term 1 and term 3.

Children in the EYFS will develop a range of creative skills using a wide variety of media and materials for creative expression and construction. This is planned for in the Expressive Arts and Design area of the EYFS curriculum.

Primary resources e.g. materials, sewing equipment and construction kits are stored centrally in the DT cupboard. It is important to ensure that resources are labelled, tidy and ready for use. The DT cupboard is located in Reception which contains the saws, drills and other controlled tools and equipment. Resources are regularly audited and updated by the DT subject leader.

The following tables outline the curriculum and key questions that will be asked at the beginning of each topic for each year group. The purpose of the questions is in order to deepen children's knowledge and understanding and to help them develop and complete their projects.

## Year 1

<p><b>Playgrounds</b></p> <p>Focus – structures</p>	<p>Do playgrounds change around the world?</p> <ul style="list-style-type: none"> <li>• What will you include in your playground?</li> <li>• Which materials will be appropriate to use outside?</li> <li>• How can you make your playground sturdy?</li> </ul> <p><b>Key vocabulary:</b> designing: drawing, user, model, plan • making: equipment, parts, construction kits, join, fix • knowledge and understanding: framework, movement, structure, weak, strong, on top of, underneath, side, edge, surface, thinner, thicker, corner, point, symmetrical edge, straight, curved – names and shapes of materials which are used in full-size playground equipment e.g. metal, wood, plastic – types of playground equipment e.g. swing, see-saw, roundabout, climbing frame, slide, rocking horse – names of mathematical 2D shapes e.g. circle, triangle, square, rectangle and 3D shapes e.g. cuboid, cube.</p> <p><b><u>Suggested Cross Curricula Links</u></b></p> <p><b>Science:</b> Units 1C 'Sorting and using materials', 1E 'Pushes and pulls', 2E 'Forces and movement'</p> <p><b>Information technology:</b> Units 1A 'Assembling text', 1B 'Using a word bank', 1E 'Representing information graphically: pictograms'</p> <p><b>Mathematics:</b> Number (before, after, between, largest, smallest, how many, roughly, too many, too far), handling data (sorting, identifying most/least popular), measurement (length, balance, heavy, light)</p> <p><b>Literacy:</b> The class should discuss how to phrase and punctuate questions as part of their survey e.g. considering words which signal a question</p> <p><b>Geography:</b> comparing the UK and non-European countries</p> <p><b>Speaking and listening:</b> Describing observations.</p>
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	<p><b><u>Resources</u></b></p> <ul style="list-style-type: none"> <li>• books, photographs of playground equipment</li> <li>• construction kits, including kits which can be used to construct semi-rigid frameworks</li> <li>• sheet materials e.g. paper, card, plastics</li> <li>• reclaimed materials e.g. small containers, egg boxes, cotton reels</li> <li>• string, adhesive tape</li> <li>• joining materials e.g. glue, plasticine or similar modelling material</li> <li>• finishing materials e.g. paint</li> <li>• scissors, snips, hole punch, stapler</li> </ul>
<p><b>Eat More Fruit and Vegetables</b></p> <p>Focus – food</p>	<p>What food is healthy to bring to a teddy bears picnic?</p> <ul style="list-style-type: none"> <li>• Do the seasons differ people’s diets?</li> <li>• Why do we need a healthy diet?</li> </ul> <p><b>Key vocabulary:</b> designing: choosing, investigating, tasting, arranging, experimenting, popular, sort, block graph, pictogram • making: washing, cleaning, peeling, cutting, slicing, grating • knowledge and understanding: salad, fruit, vegetables, peel, flesh, skin, grater, chopping board, peeler, seeds, pips, stalk, juice, root, leaf, stone, bunch – sensory e.g. crisp, sharp, juicy, sweet, sour, sticky, squashy, smooth, crunchy, scented, waxy.</p> <p><b><u>Suggested Cross Curricula Links</u></b></p> <p><b>Science:</b> Units 1A ‘Ourselves’, 1B ‘Growing plants’, 2A ‘Health and growth’, 3B ‘Helping plants grow well’</p> <p><b>Information technology:</b> Units 1B ‘Using a word bank’, 1E ‘Representing information graphically: pictograms’</p> <p><b>Mathematics:</b> Number (to 20 at least, share, groups of, pattern, fraction), measurement (cost, coin, how much)</p> <p><b>Literacy:</b> Children should be taught to classify the words they collect e.g. nouns, verbs and distinguish between them.</p> <p><b><u>Resources</u></b></p> <ul style="list-style-type: none"> <li>• range of fruit and vegetables (including some unusual fruit/vegetables)</li> <li>• plates, dishes, bowls, peeler, grater, chopping board, plastic mixing bowls, vegetable knives, forks, spoons</li> <li>• plastic table covers, antibacterial cleaner, access to hand-washing and washing-up facilities, aprons</li> </ul>
<p><b>Moving Pictures</b></p> <p>Focus – mechanisms</p>	<p>How can we use items from around the house to make a moving character?</p> <ul style="list-style-type: none"> <li>• What materials make pictures move?</li> <li>• Can all pictures move in the same way?</li> </ul> <p><b>Key vocabulary:</b> designing: idea, discuss, choose, drawing, labelling • making: hole punch, paper fastener, join, cut carefully, planning • knowledge and understanding: moving, handle, lever, pivot, pull, push, slider, direction, blade, metal, balance, movement, forward, backwards, order, sequence, length.</p> <p><b><u>Suggested Cross Curricula Links</u></b></p> <p><b>Science:</b> Unit 1E ‘Pushes and pulls’</p> <p><b>Information technology:</b> Units 1D ‘Labelling and classifying’, 2B ‘Creating</p>

	<p>pictures'</p> <p><b>Mathematics:</b> Position and direction (slide, left, right, up, down)</p> <p><b>Literacy:</b> Responding to stories, storytelling.</p> <p><b><u>Resources</u></b></p> <ul style="list-style-type: none"> <li>• a selection of products with moving parts e.g. scissors, balances, storybooks, badges, puppets, cards</li> <li>• a selection of favourite storybooks</li> <li>• disposable pictures which can be cut up for experimentation</li> <li>• paper, card, pre-cut strips of card</li> <li>• paper fasteners, masking tape, glue, plier punch or single-hole punch, scissors</li> <li>• a selection of coloured papers, pens, paints</li> <li>• construction kits</li> </ul>
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## Year 2

<p><b>Vehicles</b></p> <p>Focus – mechanisms</p>	<p>How can you get from Manchester to London?</p> <ul style="list-style-type: none"> <li>• What type of vehicle could you use?</li> <li>• How will you make it move?</li> </ul> <p><b>Key vocabulary:</b> designing: purpose, ideas, discuss, explore, predict, guess, survey, table, venn diagram, most/least common • making: joining, combining, connecting, testing, punching • knowledge and understanding: vehicle, wheels, chassis, axles, doweling, hole punch, logo, distance.</p> <p><b><u>Suggested Cross Curricula Links</u></b></p> <p><b>Science:</b> Units 2E 'Forces and movement', 4E 'Friction'</p> <p><b>Information technology:</b> Units 2B 'Creating pictures', 2D 'Routes: controlling a floor turtle'</p> <p><b>Mathematics:</b> Measurement (standard, non-standard, apart, between, ruler, longer, shorter, weigh, more, less, balance, weight)</p> <p><b>Literacy:</b> Children could investigate the difference between long and short captions in information books, before labelling their drawings</p> <p><b>Geography:</b> United Kingdom cities and maps.</p> <p><b><u>Resources</u></b></p> <ul style="list-style-type: none"> <li>• toy vehicles, models, pictures of vehicles, video of vehicles moving</li> <li>• various types of wheels, including wooden and plastic wheels, cotton reels and card discs</li> <li>• collage materials</li> <li>• straws, doweling and plastic tubing, reclaimed boxes, card, clothes pegs, single-hole punch or card punch, thin corrugated plastic sheet</li> <li>• simple jigs for holding materials</li> <li>• computer and printer with paint, draw or graphics programs</li> </ul>
<p><b>Puppets</b></p> <p>Focus – textiles</p>	<p>How did people dress during the period of the Great Fire of London?</p> <ul style="list-style-type: none"> <li>• Which materials would have been used for clothing?</li> <li>• How can you attach the clothing to your puppet design?</li> </ul> <p><b>Key vocabulary:</b> designing: user, list, label, drawing, ideas, mock-up, choose, decide, evaluate, try out ideas, standard unit • making: plan, template, fabric,</p>



	<p>cutting out, sewing, needle, running stitch, gluing, adding • knowledge and understanding: character, puppet, seam, stitch, thread, strong, quality, features, strengthen, reflective symmetry, position, to, towards.</p> <p><b><u>Suggested Cross Curricula Links</u></b>  <b>Science:</b> Unit 3C 'Characteristics of materials'  <b>Information technology:</b> Units 1D 'Labelling and classifying', 2A 'Writing stories: communicating information using text', 2B 'Creating pictures', 4A 'Writing for different audiences'  <b>Mathematics:</b> Number (fraction, whole, half, remainder)  <b>Literacy:</b> Writing for different audiences  <b>History:</b> The Great Fire of London  <b>Speaking and listening:</b> Drama activity and performance.</p> <p><b><u>Resources</u></b></p> <ul style="list-style-type: none"> <li>• examples or pictures of a variety of finger and hand puppets from a range of cultures</li> <li>• fabric for learning sewing techniques eg plastic mesh, binca, hessian</li> <li>• fabric for puppets, preferably nonfraying eg felt, dipryl (which is used for making disposable cloths)</li> <li>• doweling</li> <li>• templates, fabric scissors</li> <li>• needles, thread, fabric glue, stapler</li> <li>• felt-tip pens, wool, sequins, buttons, small pieces of fabric to use as features for the puppets</li> </ul>
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### Year 3

<p><b>Packaging</b></p> <p>Focus – structures</p>	<p>How can you send a parcel to your friend who lives abroad?</p> <ul style="list-style-type: none"> <li>• What materials are best to use?</li> <li>• How can you make it sturdy?</li> </ul> <p><b>Key vocabulary:</b> designing: font, graphic, decision, evaluating, criteria, fit for purpose, holds • making: scoring, tabs, adhesives, join, assemble, accuracy • knowledge and understanding: three-dimensional (3D) shape, cube, cuboid, prism, net, vertex, edge, face, packaging, shell structure, breadth, capacity.</p> <p><b><u>Suggested Cross Curricula Links</u></b>  <b>Science:</b> Units 2A 'Health and growth', 3C 'Characteristics of materials'  <b>Information technology:</b> Text and graphics and Units 2B 'Creating pictures', 3A 'Combining text and graphics', 4E 'Modelling effects on screen'  <b>Mathematics:</b> Number (approximate, increase, decrease), shape (angle, greatest, least value)  <b>Art:</b> Experimenting with visual elements e.g. pattern, shape, colour.</p> <p><b><u>Resources</u></b></p> <ul style="list-style-type: none"> <li>• a collection of packaging for different purposes e.g. from confectionery, biscuits, toys or breakfast cereal</li> <li>• paper, squared paper, coloured card, tissue paper, clear adhesive tape, masking tape, PVA glue, clear and tinted acetate film or sheet</li> <li>• range of tools for marking out, cutting and joining paper and card e.g. pencils, rulers, scissors, glue spreaders, coloured pencils and/or felt-tip</li> </ul>
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	<p>pens</p> <ul style="list-style-type: none"> <li>• computer and printer with a word processing/graphics program</li> </ul>
<p><b>Sandwich Snacks</b></p> <p>Focus – food</p>	<p>How can you make a sandwich fit for a king?</p> <ul style="list-style-type: none"> <li>• What is the healthiest type of bread?</li> <li>• Which fillings make a healthy option?</li> <li>• Can you plan to adapt your meal to cater for specific dietary requirements?</li> </ul> <p><b>Key vocabulary:</b> designing: texture, taste, appearance, healthy, preference, criteria, cost, questionnaire, data, frequency diagram • making: cut, mix, spread, slice, blend, grate, chop, chopping board, knife, grater • knowledge and understanding: sandwich, filling, ingredients, fridge, food groups, hygiene, high risk, healthy eating, 'balanced plate', thick, thin – sensory e.g. sweet, sour, bitter, salty.</p> <p><b><u>Suggested Cross Curricula Links</u></b></p> <p><b>Science:</b> Units 4A 'Moving and growing', 5A 'Keeping healthy'</p> <p><b>Information technology:</b> Units 3C 'Introduction to databases', 4D 'Collecting and presenting information: questionnaires and pie charts', 5B 'Analysing data and asking questions: using complex searches'</p> <p><b>Mathematics:</b> Number (equivalent)</p> <p><b>Literacy:</b> Examine how text is organised and laid out in recipes e.g. highlight the use of imperatives and the importance of sequence, comparing them with other instructional texts</p> <p><b>History:</b> Unit 9 'What was it like for children in the Second World War?' (food rationing).</p> <p><b><u>Resources</u></b></p> <ul style="list-style-type: none"> <li>• pictures/images of sandwiches and fillings</li> <li>• a selection of different types of sandwiches</li> <li>• a variety of breads</li> <li>• ingredients suitable for spreads and fillings</li> <li>• plastic table covers, antibacterial cleaner, hand-washing and washing-up facilities, aprons</li> <li>• tools and equipment e.g. knives, chopping boards, graters, plates, bowls, plastic film</li> <li>• access to oven</li> </ul>
<p><b>Moving Monsters</b></p> <p>Focus – control: mechanisms</p>	<p>What type of monster would protect your castle?</p> <ul style="list-style-type: none"> <li>• Which materials would make a strong monster?</li> <li>• How can you make different body parts move in different ways?</li> </ul> <p><b>Key vocabulary:</b> designing: brainstorm, suggestion, evaluate, ideas, constraints, appropriate, graph, data, sort, order, set, label, title, list, probable, possible, impossible • making: planning, storyboard, components, fixing, tubing, syringe, attaching, finishing • knowledge and understanding: control, pneumatic system, pressure, inflate, deflate, input, output, pump, hinge, fastest, slowest, often, always, sometimes, never.</p> <p><b><u>Suggested Cross Curricula Links</u></b></p> <p><b>Science:</b> Unit 4E 'Friction'</p> <p><b>Information technology:</b> Units 3A 'Combining text and graphics', 5E 'Controlling devices', 6C 'Control and monitoring – What happens when...?'</p>

	<p><b>Mathematics:</b> Position and direction (opposite, along, through, middle, edge, next to), measurement (standard, non-standard units)</p> <p><b>Speaking and listening:</b> Teach discussion skills to help children reach an agreement about what is to be done and so that they can evaluate their work.</p> <p><b><u>Resources</u></b></p> <ul style="list-style-type: none"> <li>• examples of products that use air e.g. pneumatic toys, foot pump for inflating air mattress, balloon pump</li> <li>• washing-up liquid bottles, 5mm diameter plastic tubing, balloons, sterile syringes</li> <li>• construction kits</li> <li>• suitable reclaimed materials, card, plastic sheet</li> <li>• materials for finishing e.g. coloured papers, paint, papier mâché, fabric, foil</li> <li>• PVA glue, masking tape, parcel tape, lower temperature glue gun, pipe-cleaners • scissors, snips</li> </ul>
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## Year 4

<p><b>Money Containers</b></p> <p>Focus – structures: textiles</p>	<p>How can Robin Hood transport his riches?</p> <ul style="list-style-type: none"> <li>• What materials will be most appropriate?</li> <li>• How do you keep it all together?</li> </ul> <p><b>Key vocabulary:</b> designing: user, purpose, design criteria, model, evaluating, labelled drawings, stiffening, reinforcing, coins, notes • making: pattern/templates, strength, weaknesses, accurate, finishing • knowledge and understanding: fabric, fastening, compartment, zip, press stud, clasp, hook and eye, button, buckle, seam, seam allowance, reinforce, gusset, dye, embroidery – properties: strength, hardwearing, stretch, fray.</p> <p><b><u>Suggested Cross Curricula Links</u></b></p> <p><b>Information technology:</b> Unit 4B ‘Developing images using repeating patterns’ <b>Mathematics:</b> Number (sequence, alternate, double, half, remainder), measurement (standard, non-standard)</p> <p><b>Literacy:</b> Writing instructions. Use the vocabulary of this unit e.g. zip, clasp, seam to explore the relationship between nouns and verbs. Draw out the characteristic use of imperative verbs, link phrases and headings in instructional texts before the writing stage</p> <p><b>Art:</b> Use of patterns, textures.</p> <p><b><u>Resources</u></b></p> <ul style="list-style-type: none"> <li>• collection of purses, wallets, belt bags made from different materials, from different cultures, and with a range of fastenings</li> <li>• selection of fabrics e.g. felt, calico, hessian</li> <li>• selection of fastenings used on purses, wallets and bags</li> <li>• scissors for fabric, thread, tape, needles, fabric glue</li> </ul>
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	<ul style="list-style-type: none"> <li>• materials for decorative techniques e.g. embroidery thread and needles, dye, fabric crayon and paints</li> </ul>
<p><b>Lighting It Up</b></p> <p>Focus – control: electrical, computer</p>	<p>How bright is the breath of a fire breathing dragon?</p> <ul style="list-style-type: none"> <li>• Which type of light is the most appropriate to use?</li> <li>• How can you connect it to make your design light up?</li> </ul> <p><b>Key vocabulary:</b> designing: user, specific, plan, labelled drawings, decide, list, classify, specification, design criteria • making: clip, rectify, fault, screw, join, connect • knowledge and understanding: electricity, circuit, battery, battery holder, bulb, bulb holder, wire, insulation, crocodile connector, aluminium foil, switch, reflector, energy, control, automatic.</p> <p><b><u>Suggested Cross Curricula Links</u></b>  <b>Science:</b> Unit 6G 'Changing circuits (short unit)'  <b>Information technology:</b> Units 5E 'Controlling devices', 6C 'Control and monitoring – What happens when...?'  <b>Mathematics:</b> Handling data (set, subset, probable, certain, uncertain)  <b>Literacy:</b> The listing and labelling activities could be linked with text level work on note making and presenting information in term 2. Support the evaluation of the light by the use of a writing frame to prompt ideas</p> <p><b><u>Resources</u></b></p> <ul style="list-style-type: none"> <li>• a collection of lights for a variety of purposes</li> <li>• Internet connection and list of appropriate websites for research purposes</li> <li>• batteries</li> <li>• battery holders (if cylindrical batteries are used), bulbs, bulb holders, LEDs, crocodile connectors, lengths of connecting wire, aluminium foil</li> <li>• paper fasteners, paper clips, drawing pins, selection of suitable sheet materials, construction card, sticky tape</li> <li>• adhesives, reflective materials, scissors, staplers</li> <li>• wire stripper and cutter, small electrical screwdriver</li> <li>• appropriate</li> </ul>
<p><b>Storybooks</b></p> <p>Focus – control: mechanisms</p>	<p>How can you make your story stand out?</p> <ul style="list-style-type: none"> <li>• Which type of stories work well as a popup book?</li> <li>• What type of mechanism will work to make the pictures pop out?</li> </ul> <p><b>Key vocabulary:</b> designing: model, mock-up, plan, fit for the purpose • making: fold, adhesive, scoring, cutting, joining, temporary fixing, permanent fixing • knowledge and understanding: linkage, lever, pivot, flexible, shape, joint, hinge, area, surface, covers – types of movement e.g. rotary, linear</p> <p><b><u>Suggested Cross Curricula Links</u></b>  <b>Science:</b> Units 4E 'Friction', 6E 'Balanced and unbalanced forces'  <b>Information technology:</b> Units 3A 'Combining text and graphics', 4B 'Developing images using repeating patterns', 5E 'Controlling devices'  <b>Mathematics:</b> Number (consecutive, alternate, sequence, predict, rule)  <b>Literacy:</b> Link this unit to work on texts where children identify an audience for a particular genre of writing or their own work, considering the effect this has on the use and organisation of language  <b>Speaking and listening:</b> Teach the children an approach to reviewing their progress orally e.g. recalling the original idea, summarising what has been done, giving opinions on progress</p>

	<p><b>Art:</b> Using visual elements e.g. colour, shape, texture.</p> <p><b><u>Resources</u></b></p> <ul style="list-style-type: none"> <li>• a collection of books which have pop-up and moving parts</li> <li>• other products which include linkages e.g. toys, squeezey kitchen mops</li> <li>• examples of pop-up and moving mechanisms made beforehand</li> <li>• squared paper, coloured paper and card, paper fasteners or binders, paper straws</li> <li>• PVA glue, glue sticks, masking tape</li> <li>• thick corrugated card and drawing pins for modelling ideas</li> <li>• scissors, craft knives, cutting mats, safety rulers, hole punch, wavy line cutters, perforation cutters</li> <li>• computer and printer with graphics YEAR 4 or word processing program</li> </ul>
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## Year 5

<p><b>Moving Toys</b></p> <p>Focus – control: mechanisms</p>	<p>How can we make toys move without batteries?</p> <ul style="list-style-type: none"> <li>• How is rotary motion converted into linear motion?</li> <li>• How does the shape of the cam affect the path of movement?</li> </ul> <p><b>Key vocabulary:</b> designing: sequence, annotated diagram, sketch, decision, choice, prototype, model, communicate • making: shape, assemble, accurate, saw, mark out • knowledge and understanding: cam, mechanism, movement, linear motion, rotary motion, pivot, off-centre, axle, force, framework, follower, guide, offset, shaft, elliptical, spiral, transfer.</p> <p><b><u>Suggested Cross Curricula Links</u></b></p> <p><b>Science:</b> Unit 6E ‘Balance and unbalanced forces’</p> <p><b>Information technology:</b> Unit 5E ‘Controlling devices’</p> <p><b>History:</b> WWII (Battle of Britain) – invention and transport</p> <p><b>Literacy:</b> Highlight sequence and the need for essential details only in the use of storyboards as a planning device</p> <p><b>Maths:</b> Positional and directional vocabulary.</p> <p><b><u>Resources</u></b></p> <ul style="list-style-type: none"> <li>• a collection of toys containing cams</li> <li>• construction kits</li> <li>• stiff sheet materials, e.g. card, foam board, corrugated plastic, prepared cams (shaped and off-centre wheels)</li> <li>• wooden wheels, doweling, cardboard boxes or wooden frames</li> <li>• PVA glue, masking tape</li> <li>• tools and equipment – bench hooks, saws, hand drill, G-cramp, round file, single-hole punch, paper drill, metal safety ruler, craft knife, cutting mats and glue gun (for teacher use)</li> </ul>
<p><b>Musical Instruments</b></p> <p>Focus – structures</p>	<p>How can we create our own ‘Trash Band’?</p> <ul style="list-style-type: none"> <li>• What factors influence the sound an instrument makes?</li> <li>• Can we select appropriate materials, joining and strengthening techniques to create a functional instrument</li> </ul>

	<p>from recycled objects?</p> <p><b>Key vocabulary:</b> designing: investigate, survey, plan, research, texture, intention, structure, outcome • making: mouldable material, mould, moulding, adhesives, polyvinyl acetate (PVA) wood glue, shaping, cutting, recreate, form, structure, reinforce • knowledge and understanding: sound, note, pitch, duration, dynamics, tempo, timbre, hollow, solid, recycling.</p> <p><b><u>Suggested Cross Curricula Links</u></b>  <b>Science:</b> Unit 5F 'Changing sounds', Unit 3C 'Characteristics of materials'  <b>Global Citizenship and Wellbeing:</b> Recycling  <b>Music:</b> Creating and investigating musical instruments.</p> <p><b><u>Resources</u></b></p> <ul style="list-style-type: none"> <li>• a collection of simple musical instruments or pictures including (if possible) some from other times and cultures e.g. Horniman Museum</li> <li>• margarine pots, plastic bottles with ridges, food containers, biscuit tins, carrier bags, rice, sand, gravel, glasspaper</li> <li>• paper, coloured card, clear adhesive tape, masking tape, PVA glue, string, rubber bands</li> <li>• stripwood (assorted sections and sizes), dowel rod</li> <li>• range of basic tools for cutting and shaping paper, card and wood</li> <li>• paints and brushes</li> </ul>
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## Year 6

<p><b>Stain glass cookies</b></p> <p>Focus – Food structure textiles</p>	<p>Which ingredients would be suitable to create a stain glass effect on cookies?</p> <ul style="list-style-type: none"> <li>• What materials would make suitable packaging for cookies?</li> <li>• What kind of chocolate/sweet would help create a stain glass effect?</li> </ul> <p><b>Key vocabulary:</b> diet, healthy, varied, balanced, nutrition, prepare, cook, savoury, sweet, dessert, dish, technique, seasonality, ingredients, grown, reared, caught, processed, rations, method, steps, cuisine, influence, design, marketing, materials</p> <p><b><u>Suggested Cross Curricula Links</u></b>  <b>Mathematics:</b> Enlarge, reduce, scale up, scale down, measurements  <b>Literacy:</b> Reinforce work on conditionals e.g. highlighting language like 'if', 'then', 'might', 'could' as part of sequential planning. Develop a writing frame to make an evaluation e.g. by identifying the kinds of questions to be asked  <b>Art:</b> designing packaging beforehand using suited resources</p> <p><b><u>Resources</u></b></p> <ul style="list-style-type: none"> <li>• oven</li> <li>• deep mixing bowls</li> <li>- wooden spoon</li> <li>• ingredients for biscuit or cookie</li> <li>• materials to create packaging</li> </ul>
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	<ul style="list-style-type: none"> <li>• glue scissors paints</li> </ul>
<p><b>Slippers</b></p> <p>Focus – structures: textiles</p>	<p>What footwear did ancient Greeks wear?</p> <ul style="list-style-type: none"> <li>• What shoes did they wear in ancient Greece?</li> <li>• What did the poor wear in ancient Greece?</li> <li>• What colours were ancient Greek clothing?</li> </ul> <p><b>Key vocabulary:</b> designing: specification, flow chart, mock-up, accurate, users, fabric swatches, working drawing • making: pattern/template, working properties • knowledge and understanding: seam, seam allowance, insulation, sole, upper, inner, reinforce, right side/wrong side, stitch, stitching, tacking, wadding, sewing machine, hem.</p> <p><b><u>Suggested Cross Curricula Links</u></b></p> <p><b>Mathematics:</b> Enlarge, reduce, scale up, scale down</p> <p><b>Literacy:</b> Reinforce work on conditionals e.g. highlighting language like 'if', 'then', 'might', 'could' as part of sequential planning. Develop a writing frame to make an evaluation e.g. by identifying the kinds of questions to be asked</p> <p><b>History:</b> Ancient Greek.</p> <p><b><u>Resources</u></b></p> <ul style="list-style-type: none"> <li>• collection of slippers or pictures of slippers for different people, from different cultures and for different purposes</li> <li>• selection of fabrics and materials e.g. felt, dipryl (used for making disposable clothes), baize, hessian, calico, corduroy, wadding, bubble wrap, foam</li> <li>• fabric paints, sequins, embroidery threads</li> <li>• needles, pins, threads, fabric scissors, paper/grid paper</li> <li>• sewing machine (if it can be safely managed)</li> </ul>

### **AMBITION FOR ALL:**

The needs of all learners to check, embed, extend learning will be met through the following:

All curriculum plans - half termly and daily;

- Identify greater challenge/tasks for the more able learners.
- Opportunities for all SEND pupils in class and how their needs will be met to enable access/achievement/attainment/closing the gap.
- How the needs of disadvantaged pupils - to ensure there are no gaps between their learning and those of non-disadvantaged.
- EAL - pupils for when English is not their first language.

Support will take many forms:

- Interventions including for the most able
- Resources
- Staff deployment

- Task setting
- Questioning

## **SECTION 3 – IMPACT**

Impact will be measured by:

- Outcomes
- Assessment
- Attendance
- Behaviour
- Monitoring

To ensure school is ambitious for all its pupils.

### **OUTCOMES:**

Children will keep a creative portfolio containing their designs from year 1 – year 6. This will encourage them to reflect on previous methods they have learnt in earlier years and develop these skills to apply to a new theme or product.

### **ASSESSMENT:**

At St Luke's, we assess children's work in DT by making informal judgements as we observe them during each lesson. Through weekly pupil dialogue sessions, the class teacher will assess selected pupils on their understanding of the transferable skills they have learnt by questioning children in cross curricula activities. On completion of a piece of work, the teacher and peers respond to children's work, identifying areas of success and areas for development.

### **ATTENDANCE AND PUNCTUALITY:**

Poor attendance and punctuality impacts negatively on learning creating gaps with a possible impact on social and emotional wellbeing (more acute where attendance is significantly below the expected).

### **BEHAVIOUR:**

Where behaviour leads to pupil disengagement and/or impacts on the learning and progress of children, teachers and the SLT will intervene as appropriate in line with the school behaviour policy.



<b>Title</b>	<b>Policy</b>
<b>Date</b>	<b>March 2023</b>
<b>Review</b>	<b>Reviewed November 2023</b>