







# DESIGN AND TECHNOLOGY - Long Term Plan and Progression Document



Vision 	Intent 	Implementation 	Impact 
<p>At Eccleston Lane ends, we believe that Design and Technology prepares children to take part in the development of the rapidly changing world. Creative thinking encourages children to make positive changes to their quality of life. DT encourages children to become innovative and creative thinkers and problem-solvers, both as individuals and as part of a team. Through the study of Design and Technology, children combine practical skills with an understanding of aesthetic, social and environmental issues.</p>	<p>At Eccleston Lane Ends our intent for Design and Technology is to offer a broad and varied curriculum which is inspiring, progressive and practical. Children participate in a broad range of practical experiences which solve real and relevant problems within a variety of different contexts.</p>	<p><b>Design Technology at ELE is taught termly throughout KS1 and KS2. DT is taught weekly, or in blocks throughout the year, so that children can achieve depth in their learning.</b></p> <ul style="list-style-type: none"><li>• The children use 'knowledge Mats' at the start of each unit to generate curiosity, discussion and develop vocabulary.</li><li>• Children are encouraged to listen to the ideas of others, and treat them with respect, to critically evaluate existing products, both their own work and those of others. Children also have the opportunity to use a wide range of materials and resources, including ICT.</li><li>• At Eccleston Lane ends, we believe that creative thinking encourages children to make positive changes to their quality of life. DT encourages children to become innovative and creative thinkers and problem-solvers, both as individuals and as part of a team.</li><li>• Children to analyse and evaluate past and present designs, its uses and its impacts.</li><li>• Children are taught to produce practical solutions to real problems</li></ul>	<p><b>By the end of their time at Eccleston Lane Ends children will ...</b></p> <ul style="list-style-type: none"><li>• Develop a range of life skills, which they can use and develop beyond school life.</li><li>• Display confidence and enjoyment in Design and Technology.</li><li>• Use and apply skills across the curriculum, making meaningful connections in purposeful contexts.</li><li>• Have a resilient attitude.</li><li>• Ability to thinking critically and problem solve.</li><li>• Have ambitious aspirational futures an understanding of how to achieve these.</li></ul>



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		<p>and develop technical understanding and making skills, they learn about design methods and investigate their environment and the materials around them.</p> <ul style="list-style-type: none"><li>• Threaded through Design Technology lesson are the fundamental British Values of <i>Rule of Law, Individual Liberty, Democracy, Mutual Respect and Tolerance.</i></li></ul>	
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DESIGN & TECHNOLOGY						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	Pumpkin soup Conker swing - woodwork Forest medal Christmas decoration - TWIGS (Handsaw)		Sandwich Fruit kebab Free choice box modelling		Puppets - with paper and card Kites/structure A class box mansion/street A boat that floats	
Year 1	Mechanisms - Wheels and axles		Mechanisms Sliders and Levers - Moving picture book		Food and Nutrition - Different diets	
Year 2	Structures - Bridges			Textiles- Bunting		Food and Nutrition - Seaside snacks
Year 3		Mechanisms-Shaduf Well (Egyptians)		Structures - Survival Shelters		Food and Nutrition - Great British Dishes
Year 4	Food and Nutrition - Mediterranean Cooking		Textiles - Bag/Roman coin purse		Electrical systems Structures - Light-up box	
Year 5		Mechanisms - Space Buggies Electrical circuits - bulbs and motors		Food and Nutrition - American Food		CAMS - mechanism toy for seedling
Year 6		Structures and mechanisms - Theme Park		Textiles - WW1/2 Fashion		Food and Nutrition - South American



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## EYFS

In EYFS, Design Technology is implemented through physical development and expressive arts. Within various topics, physical development is explored through fine and gross motor activities such as arts and crafts and the practice of using small tools. Feedback and support from adults allows children to develop proficiency, control and confidence. Through expressive arts, children have regular opportunities to engage with the arts, enabling them to explore and play with a wide range of media and materials developing their understanding, self-expression, vocabulary and ability to communicate through the arts.

## DT

### Three and Four-Year-Olds

#### Personal, Social and Emotional Development

- 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.

#### Physical Development

- Use large-muscle movements to wave flags and streamers, paint and make marks.
- Choose the right resources to carry out their own plan.
- Use one-handed tools and equipment, for example, making snips in paper with scissors.

#### Understanding the World

- Explore how things work.

#### Expressive Arts and Design

- Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park.
- Explore different materials freely, in order to develop their ideas about how to use them and what to make.
- Develop their own ideas and then decide which materials to use to express them.
- Create closed shapes with continuous lines, and begin to use these shapes to represent objects.



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Reception	Physical Development	<ul style="list-style-type: none"> <li>• Progress towards a more fluent style of moving, with developing control and grace.</li> <li>• Develop their small motor skills so that they can use a range of tools competently, safely and confidently.</li> <li>• Use their core muscle strength to achieve a good posture when sitting at a table or sitting on the floor.</li> </ul>			
	Expressive Arts and Design	<ul style="list-style-type: none"> <li>• Explore, use and refine a variety of artistic effects to express their ideas and feelings.</li> <li>• Return to and build on their previous learning, refining ideas and developing their ability to represent them.</li> <li>• Create collaboratively, sharing ideas, resources and skills.</li> </ul>			
Strands/concepts/big Ideas for your subject area	<b>STRUCTURES</b> (sometimes including electrical systems)	<b>MECHANISMS</b>	<b>TEXTILES</b>	<b>COOKING AND NUTRITION</b>	<b>Evaluation</b>
<b>Year 1</b>					
Key Stage 1 end points		Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.		Use the basic principles of a healthy and varied diet  To prepare dishes understand where food comes from.	Explore and evaluate a range of existing products.  Evaluate their ideas and products against design criteria.
Skills to be taught		Designing a moving story book for a given audience.  Designing a vehicle that includes wheels, axles and		Measure and weigh food items using non-standard measures (e.g. spoons and cups).  Describe the texture of foods.	Describe how an existing product works (e.g. 'the toy moves when I turn the handle').



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		<p>axle holders, which will allow the wheels to move.</p> <p>Creating clearly labelled drawings which illustrate movement.</p> <p>Following a design to create moving models that use levers and sliders.</p> <p>Adapting Mechanisms.</p>			<p>Tasting and evaluating different food combinations.</p> <p>Describing appearance, smell and taste.</p> <p>Suggesting information to be included on packaging.</p>
Knowledge to be taught		<p>Understanding that axles are used in structures and mechanisms to make parts turn in a circle.</p> <p>Know that a wheel needs an axle in order to move.</p>		<p>Identify the source for common foods.</p> <p>Understanding the difference between fruits and vegetables.</p>	<p>Tasting and evaluating different food combinations</p> <p>Describing appearance, smell and taste.</p> <p>Suggesting information to be included on packaging.</p>
Vocabulary		<p>Wheels, axels, chassis, levers, sliders, movement, Left, right, handsaw, string, support, turn</p>		<p>Safety, hygiene, local produce, claw grip, bridge grip, healthy, tasty, juicy, hard, soft, sour, tangy.</p>	<p>Positive, negative, improvements,</p>
<b>Year 2</b>					
Key Stage 1 end points	<p>Build structures, exploring how they can be made stronger, stiffer and more stable.</p>		<p>Demonstrate a range of joining techniques. Join textiles using a running stitch. Make products, refining the design as work progresses. Explore</p>	<p>Cut, peel or grate ingredients safely and hygienically. Measure or weigh using measuring cups. Design products that have a clear purpose and an intended</p>	<p>Explore and evaluate a range of existing products.</p> <p>Evaluate their ideas and products against design criteria.</p>



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			how products have been created.	user. Suggest improvements to existing designs.	
Skills to be taught	<p>Generating and communicate ideas using sketching and modelling.</p> <p>Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing].</p> <p>Select from and use a wide range of materials and components, including construction materials according to their characteristics.</p>		<p>Designing bunting using different types of materials.</p> <p>Join fabrics using running stitch, glue, staples, over sewing and tape.</p> <p>Selecting and cutting fabrics for sewing.</p>	<p>Designing a healthy snack based on a food combination which work well together.</p> <p>(fruit and vegetables).</p> <p>Cut, peel, grate and chop a range of ingredients.</p> <p>Slicing food safely using the bridge or claw grip.</p>	<p>Taste testing food combinations and final products.</p> <p>Identifying the weakest part of a structure</p> <p>Evaluating the strength, stiffness and stability of own structure.</p>
Knowledge to be taught	<p>Developing awareness of different structures for different purposes.</p> <p>Learning about different types of structures (bridges), found in the natural world and in every day.</p>		<p>Threading a needle.</p> <p>Sewing running stitch, with evenly spaced, neat, even stitches to join fabric.</p>	<p>.Explain where the food they eat comes from (e.g. by referring to countries, counties, animals and plants).</p>	<p>Exploring the features of structures.</p> <p>Comparing the stability of different shapes.</p> <p>Testing the strength of own structures.</p> <p>Describing the taste, texture and smell of fruit and vegetables.</p>



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Vocabulary	Flange, L-brace, slots, stability, support, beams, platforms, weight.		Stitch, needle, eye, thread, cotton, wool, yarn, decorative, celebration, safety.	Fruit, vegetables, seaside, portable, aesthetic, chopping, cutting, grating, slicing, weighing, measuring.	Positive, negative, improvements, next time, in the future.
<b>Year 3</b>					
Key Stage 2 end points	Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.	Understand and use mechanical systems in their products pulleys, levers and linkages.		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.	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.
Skills to be taught	Create a frame structure using diagonal struts to strengthen.  Designing a shelter with key features to appeal to a specific person/ purpose.  Drawing and labelling a Shelter design using 2D shapes, labelling:	Design a shaduf well from a design brief.  Generating ideas using thumbnail sketches and exploded diagrams.  Create and use simple pulleys, levers and linkages.  Selecting materials due to their functional and aesthetic characteristics		Creating a healthy and nutritious recipe for a savoury dish using seasonal ingredients, considering the taste, texture, smell and appearance of the dish.  Combine a variety of ingredients using a range of cooking techniques.	Investigate the design features (including identifying components or ingredients) of familiar.  Suggesting points for improvement when making a seasonal dish.





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	<p>-the 3D shapes that will create the features</p> <p>- materials need and colours</p> <p>Compare and contrast great structure designs, explaining why a particular design is significant in engineering history.</p>	<p>Manipulating materials to create different effects by cutting, creasing, folding, weaving.</p>		<p>Following the instructions within a recipe.</p> <p>Use ICT packages to create a labelled design or plan, in detail. (Type out Recipe with image)</p>	
Knowledge to be taught	<p>Identifying suitable materials to be selected and used for a well, considering weight, compression, tension.</p> <p>Extending the knowledge of wide and flat based objects are more stable.</p>	<p>Learning that different types of drawings are used in design to explain ideas clearly.</p> <p>Learning that mechanisms are a system of parts that work together to create motion.</p>		<p>Describing the benefits of seasonal fruits and vegetables and the impact on the environment.</p> <p>• Suggesting points for improvement when making a seasonal dish.</p> <p>Identify food which comes from the UK and other countries in the world (thus making certain foods seasonal to us.)</p>	<p>Evaluating own work and the work of others based on the aesthetic of the finished product and in comparison, to the original designs.</p> <p>Describing the benefits of seasonal fruits and vegetables and the impact on the environment.</p>
Vocabulary	<p>Shelter, cover, stable, water-proof, strength, shape, purpose</p>	<p>Lever, linkage, motion, strength, structure, materials, prototype.</p>		<p>Seasonality, savoury, cooking, smell, texture, aesthetics, recipe, instructions.</p>	<p>Positive, negative, improvements, Next time, in the future, development, enhancements.</p>



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Year 4					
Key Stage 2 end points	<p>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.</p> <p>Understand and use electrical systems in their products, for example, series circuits incorporating bulbs.</p>		<p>Select from and use a wider range of tools and equipment to perform practical tasks, for example, cutting, shaping, joining and finishing accurately</p> <p>Select from and use a wider range of materials and, textiles according to their functional properties and aesthetic qualities.</p>	<p>Understand and apply the principles of a healthy and varied diet.</p> <p>prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.</p> <p>understand seasonality and know where and how a variety of ingredients are grown, reared, caught, and processed.</p>	<p>Investigate and analyse a range of existing products.</p> <p>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p> <p>Understand how key events and individuals in design and technology have helped shape the world.</p>
Skills to be taught	<p>Prototype and build frame and shell structures, showing awareness of how to strengthen, stiffen and reinforce.</p> <p>Building frame structures designed to support weight.</p> <p>Focus on features of individual design ideas.</p> <p>Use ICT packages to create alternatives for an initial design.</p> <p>Follow health and safety rules when working with</p>		<p>Use a simple pattern to create a life-sized item of clothing.</p> <p>Measuring, marking and cutting fabric using a paper template.</p> <p>Selecting a stitch style to join fabric, working neatly sewing small, neat stitches.</p> <p>Incorporating fastening to a design.</p> <p>Writing design criteria for a product, articulating decisions made.</p>	<p>Designing a selection of Greek Meze within a given budget, drawing upon previous taste testing.</p> <p>Have they thought what they can do to present their product in an interesting way?</p> <p>Measure and weigh ingredients appropriately to prepare and cook a range of savoury dishes.</p> <p>Cooking safely, following basic hygiene rules.</p> <p>Adapting a recipe.</p>	<p>Describing what characteristics of a design and construction made it the most effective.</p> <p>Considering effective and ineffective designs.</p> <p>Testing and evaluating the success of a final product and taking inspiration from the work of peers.</p> <p>Comparing a range of products.</p>



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	materials and substances.			Writing design criteria for a product, articulating decisions made Writing design criteria for a product, articulating decisions made	
Knowledge to be taught	<p>Building on prior knowledge of net structures and broadening knowledge of frame structures.</p> <p>Learning how electrical items work.</p> <p>Learning what electrical conductors and insulators are.</p> <p>Understanding that a battery contains stored electricity and can be used to power products.</p> <p>Identifying the features of a torch.</p> <p>Understanding how a torch works.</p>		<p>Articulating the benefits and disadvantages of different fastening types.</p> <p>Suggesting modifications for improvement.</p> <p>Describe the work of a favourite fashion designer and explain why they like their design.</p>	<p>•Explain some of the processes that foods go through to preserve/make them more appealing.</p> <p>Understanding the environmental impact on future product and cost of production.</p>	<p>Describing the impact of the budget on the selection of ingredients.</p> <p>Deciding how many of the criteria should be met for the product to be considered successful.</p> <p>Suggesting modifications for improvement.</p>
Vocabulary	Structure, frame, stable, reinforce, battery, bulb, circuit, closed circuit,		Stitch, needle, eye, thread, cotton, wool, yarn, decorative, celebration,	Seasonality, savoury, cooking, smell, texture, aesthetics, recipe,	Positive, negative, improvements, enhancements, renegotiate, discussion, alterations,



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	open circuit, parallel circuit, purpose.		modification, fastening, safety.	instructions, measure, adapting, production.	
<b>Year 5 (Moon Buggy covers both structures and mechanism)</b>					
Key Stage 2 end point	<p>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.</p> <p>Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</p> <p>Select from and use a wider range of materials and components, including construction materials according to their functional properties and aesthetic qualities.</p>	<p>Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</p> <p>Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors].</p>		<p>Understand and apply the principles of a healthy and varied diet.</p> <p>prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.</p> <p>understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.</p>	<p>Investigate and analyse a range of existing products.</p> <p>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p> <p>Understand how key events and individuals in design and technology have helped shape the world.</p>
Skills to be taught	<p>Designing a space buggy structure that is able to support weight.</p> <p>Creating frame structure with focus on detailed step-by-step plans.</p>	<p>Use CAD packages to suggest alternative design ideas and explain their ideas and intentions.</p> <p>Making mechanisms and/or structures using either sliders, pivots and</p>		<p>Combine food ingredients appropriately (e.g. kneading, rubbing in and mixing).</p>	<p>Adapting and improving own structure by identifying points of weakness and reinforcing them as necessary.</p> <p>Evaluating a completed product against the original design sheet and looking at modifications that could be</p>



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	<p>Build a framework using a range of materials (e.g. wood, card and corrugated plastic) to support mechanisms.</p> <p>Build models, incorporating switches to turn on and off.</p> <p>Mapping out where different components of the circuit will go.</p>	<p>folds to produce movement.</p> <p>Using layers and spacers to hide the workings of mechanical parts for an aesthetically pleasing result.</p>		<p>Using equipment safely, including knives, hot pans and hobs.</p> <p>Following a step by step method carefully to make a recipe.</p> <p>Adapting a traditional recipe, understanding that the nutritional value of a recipe alters if you remove, substitute or add additional ingredients.</p> <p>Writing an amended method for a recipe to incorporate the relevant changes to ingredients</p> <p>Designing appealing packaging to reflect a recipe.</p>	<p>made to improve the reliability or aesthetics of it or to incorporate another type of electronic device, eg: buzzer.</p> <p>Investigate the design features (including identifying components or ingredients) of a familiar existing product in the context of the culture or society in which it was designed or made.</p>
Knowledge to be taught	<p>Adapting and improving own bridge structure by identifying points of weakness and reinforcing them as necessary.</p> <p>Identifying stronger and weaker structures.</p> <p>Finding different ways to reinforce structures.</p>	<p>Naming each mechanism, input and output accurately *moon buggy*</p> <p>Learning the key components used to create a functioning circuit. *moon buggy*</p> <p>Learning that graphite is a conductor and can be</p>		<p>Knowing how to avoid cross contamination.</p> <p>Explain what times of year particular foods are in season</p> <p>Learning that beef is from cattle and how beef is reared and processed.</p>	<p>Design features (including identifying components or ingredients) of a familiar existing product in the context of the culture or society in which it was designed or made.</p> <p>Identifying the nutritional differences between</p>



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	<p>Learning the key components used to create a functioning circuit.</p> <p>Learning that graphite is a conductor and can be used as part of a circuit.</p> <p>Learning the difference between series and parallel circuits</p> <p>Understanding that breaks in a circuit will stop it from working a motor.</p>	<p>used as part of a circuit. <b>*moon buggy*</b></p> <p>Learning the difference between series and parallel circuits. <b>*moon buggy*</b></p> <p>Understanding that breaks in a circuit will stop it from working a motor.</p> <p>Knowing that mechanisms control movement.</p> <p>Describing mechanisms that can be used to change one kind of motion into another.</p> <p>Exploring cams, learning that different shaped cams produce different follower movements.</p>		<p>Select and name appropriate tools for specific jobs and demonstrate how to use them safely.</p>	<p>different products and recipes.</p> <p>Identifying and describing healthy benefits of food groups.</p>
Vocabulary	<p>Structure, frame, stable, reinforce, joining, prototypes.</p>	<p>battery, bulb, circuit, closed circuit, open circuit, parallel circuit, purpose, gears, pulleys, movement.</p>		<p>Food groups, products, recipes, contamination, equipment, hygiene.</p>	<p>Positive, negative, improvements, enhancements, renegotiate, discussion, alterations, differences, similarities, benefits, weakness, strengths</p>
<b>Year 6 (Fairground rides cover both)</b>					





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Key Stage 2	<p>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.</p> <p>Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</p> <p>Select from and use a wider range of materials and components, including construction materials according to their functional properties and aesthetic qualities.</p>	<p>Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</p> <p>Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors].</p>	<p>Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</p> <p>Select from and use a wider range of materials and, textiles according to their functional properties and aesthetic qualities</p>	<p>Understand and apply the principles of a healthy and varied diet.</p> <p>prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.</p> <p>understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.</p>	<p>Investigate and analyse a range of existing products.</p> <p>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p> <p>Understand how key events and individuals in design and technology have helped shape the world.</p>
Skills to be taught	<p>Designing a fairground featuring a variety of different structures, giving careful consideration to how the structures will be used, considering effective and ineffective design.</p> <p>Drawing a design from three different perspectives.</p>	<p>Using crumble software to explore and develop movement pre-programmed to a mechanism.</p> <p>Making things move at the same time.</p> <p>Select the most appropriate mechanical system for a particular purpose.</p>	<p>Designing a piece of clothing in accordance to specification linked to set of design criteria to fit a specific theme.</p> <p>Annotating designs</p> <p>Combine fabrics to create more useful properties and make a product of</p>	<p>Writing a recipe, explaining the key steps, method and ingredients</p> <p>Including facts and drawings from research undertaken.</p> <p>Use appropriate tools and equipment, weighing and measuring with scales.</p>	<p>Applying points of improvements.</p> <p>Improving a design plan based on peer evaluation.</p> <p>Testing and adapting a design to improve it as it is developed</p> <p>Identifying what makes a successful structure.</p> <p>Evaluating work continually as it is created.</p>



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	<p>Generating ideas through sketching and discussion.</p> <p>Modelling ideas through prototypes.</p> <p>Select the most appropriate materials and frameworks for different structures, explaining what makes them strong.</p> <p>Assembling components accurately to make a stable frame.</p> <p>Understanding that for the frame to function effectively the components must be cut accurately and the joints of the frame secured at right angles.</p>	<p>Measuring, marking and checking the accuracy of the jelutong and dowel pieces required</p> <p>Assembling components accurately to make a stable frame.</p> <p>Understanding that for the frame to function effectively the components must be cut accurately and the joints of the frame secured at right angles.</p> <p>Use CAD packages to design moving parts of a design.</p> <p>Demonstrate how their products take into account the safety of the user.</p>	<p>high quality, checking for snags and glitches.</p> <p>Marking and cutting fabric accurately, in accordance with a design.</p>	<p>Following a recipe, including using the correct quantities of each ingredient.</p> <p>Working to a given timescale.</p> <p>Working safely and hygienically with independence.</p>	<p>Testing own and others finished games, identifying what went well and making suggestions for improvement.</p>
Knowledge to be taught	<p>Knowing that structures can be strengthened by manipulating materials and shapes.</p> <p>Identifying the shell structure in everyday life (cars, aeroplanes, tins, cans).</p>	<p>Using a bench hook to saw safely and effectively.</p> <p>Exploring types of motions and direction of motion.</p>	<p>Learning different decorative stitches, application and outcome of the individual technique.</p>	<p>Explain how ingredients were grown, reared, caught and processed describing the process of 'Farm to Fork' for a given ingredient.</p> <p>Research cultural traditions and evidence</p>	<p>Evaluating health. and safety in production to minimise cross contamination.</p> <p>Evaluating a recipe, considering taste, smell, texture and origin of the food group.</p>





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	Understanding the difference of manmade and natural structures.	Understanding how electromagnetic motors work.  Learning that batteries contain acid, which can be dangerous if they leak.		their influence in their own work.	Explain the form and function of familiar existing products.  Describing changes, they would make/do if they were to do the project again.
Vocabulary	Structure, frame, stable, reinforce, joining, prototypes, manmade, natural, accuracy, stiffen	battery, bulb, circuit, closed circuit, open circuit, parallel circuit, purpose, gears, pulleys, movement, crumble, control	Stitch, needle, eye, thread, cotton, wool, yarn, decorative, celebration, modification, fastening, safety, high quality, theme.	Food groups, products, recipes, contamination, equipment, hygiene, seasonality, traditions, timescale	Positive, negative, improvements, enhancements, renegotiate, discussion, alterations, differences, similarities, benefits, weakness, strengths, analyse, criteria.
BRICKS Curriculum Links For Design Technology	<p><b>B:</b> Instil the British and school values - Linked Value <b>INCLUSION</b></p> <p>Through Design Technology we ensure that we develop rounded citizens who are able to live well together with dignity and respect. We expose children to a range of job prospects and opportunities they may wish to peruse in the future as well as a variety of transferable life skills e.g. cooking, baking, sewing, stitching, sawing, electrical system knowledge etc.</p> <p>We celebrate diversity and ensure that all members of our school community feel valued and respected. We share and generate ideas in pairs, small groups or as a whole class. We respect ideas shared and support learning by suggesting improvements or enhancements to peers.</p> <p><b>R:</b> Develop resilience and resourcefulness - Linked Value <b>DETERMINATION</b></p> <p>Through the teaching of Design Technology, pupils develop skills of resilience and resourcefulness through each unit of learning. Children will encounter projects that do not necessarily work out the first time but will always be encouraged and coached to find a possible solution.</p> <p>We want all of our pupils to relish challenges, embrace their mistakes as part of the learning process, value the importance of effort, have the perseverance to complete challenging tasks, respond carefully to feedback and take inspiration from others.</p> <p><b>I:</b> Inspire critical thinking - Linked Value <b>HONESTY</b></p>				



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Design Technology creates children who think critically and can think beyond the obvious and problem solve successfully. Children create and generate prototypes before finalising projects which enable thought for potential problems and hazards. Children have the opportunities to adapt and overcome design obstacles. Children use their resilience for critical thinking to explore a variety of problem-solving techniques. Through the process of evaluation, children are able to reflect back on final projects and discuss with peers how they would adapt or change their working next time.

Critical thinking will enable children to better express their thoughts, ideas and beliefs and enable them to make good decisions and understand the consequences of their actions.

## **C:** Create articulate learners - Linked Value **CO-OPERATION**

At Eccleston Lane Ends oracy is key as we feel that this skill is invaluable not only for children's educational development but for their future lives. Within the Design and Technology curriculum, communication and verbalisation are key to making projects successful. A group of peers need to be able to share and listen to ideas, discussing potential success and potential failings. Having the correct vocabulary is key to this. Recapping, reusing and repeating subject specific language each lesson helps children to embed the vocabulary they need and apply to discussions and thinking.

We endeavour to give our pupils, a place to talk, a reason to talk and the tools with which to communicate effectively.

## **K:** Building upon knowledge and skills - Linked Value **RESPECT**

Throughout the teaching and learning of Design Technology, previous knowledge and skills are revisited each year and developed by the pupils. Children use a knowledge mat to expose them to new vocabulary and concepts, as well as 'Make it stick' pages for each unit to recall key learning from each lesson. Children build on previous units to improve skills as well as vocabulary.

This ensures that children are constantly revisiting and accessing prior learning and that learning is successfully retained and drawn upon in the future.

## **S:** Supporting well-being and health - Linked Value **KINDESS**

ELE school community and support is key when teaching and learning the subject of Design Technology. With a lot of group-based projects, children must learn to work collaboratively and respectfully with each other. Children must have kindness in mind when they provide feedback to peers and have intentions of support. Welcoming ideas from others is a way to successfully develop a project. Often seeking support from skilled specific members of the local community, children will show kindness and respect to individuals who visit classes.



# DESIGN AND TECHNOLOGY - Long Term Plan and Progression Document



	 Determination	 Co-operation	 Honesty	 <b>Inclusion</b>	 Kindness	 Respect	
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