



## Progression of Knowledge, Skills and Understanding in DESIGN TECHNOLOGY St Mary and St John Catholic Primary School



	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Autumn T1</b>	<u>Textiles</u> People who help us- creating emergency vehicles and people	<u>Structures</u> Houses and Homes	<u>Mechanisms</u> Fire Engines	<u>Mechanisms</u> Moving Monsters	<u>Textiles</u> Seasonal Stockings	<u>Textiles</u> Funky Furnishings	<u>Structures</u> Gingerbread Houses (CAD link Procreate)
<b>Spring T2</b>	<u>Textiles</u> Easter Bonnets	<u>Food</u> Eat More Fruit and Vegetables	<u>Food</u> Healthy Muffins	<u>Food</u> Perfect Pizzas	<u>Food</u> Seasonal foods- Savoury Soup	<u>Mechanical Structures</u> Levers and Pulleys	<u>Textiles</u> Fashion and Textiles
<b>Summer T3</b>	<u>Food</u> Gingerbread Men	<u>Mechanisms</u> Moving storyboard	<u>Textiles</u> Puppets	<u>Textiles</u> Pencil Cases	<u>Electrical Systems</u> Light up signs	<u>Food</u> Biscuits	<u>Mechanical Systems</u> Automata Toys  <u>Food</u> South America -Tasty Tamales



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<b>Design</b>	<p><i>Reception</i></p> <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></ul> <p><i>E.L.G</i></p> <ul style="list-style-type: none"><li>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</li><li>Share their creations, explaining the process they have used.</li></ul>	<ol style="list-style-type: none"><li>Think of ideas and share my simple designs through talking and drawing.</li><li>Design purposeful products for ourselves and others.</li><li>Use communication technology where appropriate.</li></ol>	<ol style="list-style-type: none"><li>Design purposeful, functional and appealing products for ourselves and others.</li><li>Share my ideas through talking, drawing and developing models.</li><li>Use communication technology where appropriate with growing confidence.</li></ol>	<ol style="list-style-type: none"><li>Develop ideas about the use of pneumatic systems.</li><li>Discuss and develop a design criteria to inform the design of a product.</li><li>Think of realistic ideas through discussion and using my design criteria.</li></ol>	<ol style="list-style-type: none"><li>Consider the importance of functionality and visual appeal and discuss what they think is most important for their product.</li><li>Discuss the importance of design criteria.</li><li>Draw and annotate rch designs according to a given design brief.</li></ol>	<ol style="list-style-type: none"><li>Analyse a range of cushions based on their functional and aesthetic features.</li><li>Research the history of inventions and reflect on how they may have changed the lives of people who use them.</li><li>Research different types of biscuits, biscuits for different people, popularity and personal favourites.</li></ol>	<ol style="list-style-type: none"><li>Research existing edible houses to inspire a design.</li><li>Use a computer to design a pattern template.</li><li>Design an item made using textiles, and draw pattern pieces.</li><li>Design a fairground ride with a rotating part.</li></ol>
<b>Technical Knowledge/Make</b>	<p><i>Reception</i></p> <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></ul> <p><i>E.L.G</i></p> <ul style="list-style-type: none"><li>Safely use and explore a variety of materials, tools and</li></ul>	<ol style="list-style-type: none"><li>Select from and use a range of tools and equipment to perform practical tasks.</li><li>Select from and use a range of materials, paper, card, plastic and wood as appropriate.</li><li>Use simple utensils and equipment to peel, cut, slice, squeeze, grate and chop safely.</li></ol>	<ol style="list-style-type: none"><li>Select textiles appropriate for my product. T3</li><li>Explore different finishing techniques, painting, fabric crayons, stitching, sequins, buttons and ribbons. T3</li><li>Understand how to join fabrics using different techniques, running stitches, glue, over stitch, stapling. T3</li><li>Explore and use mechanisms such as wheels, axles and axle holders and to</li></ol>	<ol style="list-style-type: none"><li>Explore what objects use air to make them move.</li><li>Learn and develop ideas about simple pneumatic systems and make them using basic equipment.</li><li>Select from and use a wider range of materials including textiles and ingredients.</li><li>Mark and cut textiles; to sew design elements by joining different materials by hand.</li></ol>	<ol style="list-style-type: none"><li>Understand and use electrical systems in their torch.</li><li>Make and test a variety of switch designs with electrical systems.</li><li>Select from and use a wider range of materials, including ingredients and what makes a good casing.</li><li>Learn about and discuss the importance of functionality and visual appeal.</li></ol>	<ol style="list-style-type: none"><li>Consider how brands may affect the cost of a product.</li><li>Explore the use of water power when building early machines in ancient China.</li><li>Investigate how to join two pieces of fabric together, considering the right and wrong side of the fabric.</li><li>Explore the different fastenings that could be used for cushion covers and discuss in terms of</li></ol>	<ol style="list-style-type: none"><li>Investigate and analyse items made using textiles.</li><li>Understand and use mechanical systems in their products (pulleys, belts, cam)</li><li>Use pattern pieces to measure, mark and cut fabric; to sew design elements according to a design.</li><li>Join fabric pieces by hand sewing.</li><li>Sew hems on an item made using textiles.</li></ol>



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	<p>techniques, experimenting with colour, design, texture, form and function.</p> <ul style="list-style-type: none"><li>• Share their creations, explaining the process they have used.</li></ul> <p><i>E.L.G</i></p> <ul style="list-style-type: none"><li>• Use a range of small tools, including scissors, paintbrushes and cutlery.</li></ul>		<p>know the difference between fixed and freely moving axes. T1</p> <p>8. Select appropriate materials to make my structure stronger, stiffer and more stable. T1,2</p>	<p>8. Make their product according to their plan and design.</p>	<p>8. Learn how to secure stitches and explore a variety of different stitches.</p> <p>9. Explore how embellishments can decorate fabrics.</p> <p>10. Make their product according to their plan and design.</p>	<p>secureness, durability and aesthetics.</p> <p>8. Select from and use a wider range of materials including fabrics and ingredients.</p> <p>9. Select from and use a wider range of tools to perform practical tasks such as joining.</p>	<p>11. Select from and use a wider range of materials including fabrics and ingredients.</p> <p>12. Select from and use a wider range of tools to perform practical tasks such as joining.</p>
<b>Evaluate</b>	<p><i>.Reception</i></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.</li></ul> <p><i>E.L.G</i></p> <ul style="list-style-type: none"><li>• Share their creations, explaining the process they have used.</li></ul>	<p>7. Explore and evaluate a range of products. (seaside snacks).</p> <p>8. Evaluate my ideas and things I have made.</p>	<p>9. Explore and evaluate a range of textile products. T3</p> <p>10. Evaluate my ideas and my product against my design criteria. T1,2,3</p>	<p>9. Evaluate and discuss their ideas and products with a partner, against their own design criteria and say what they think and feel about their products.</p>	<p>11. Evaluate and discuss their ideas and products against their own design criteria and consider the views of others to improve their work.</p>	<p>10. Evaluate and discuss their ideas, materials and products against their own design criteria and consider the views of others to improve their work.</p> <p>11. Evaluate the process as well as their finish product.</p>	<p>13. Evaluate and discuss their ideas, materials and products against their own design criteria and consider the views of others to improve their work.</p> <p>14. Evaluate the process as well as their finish product.</p>
<b>Cooking and nutrition</b>	<p><i>E.L.G</i></p> <ul style="list-style-type: none"><li>• Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</li></ul>	<p>9. Learn to use the basic principles of a healthy and varied diet to prepare dishes.</p> <p>10. Understand where food comes from.</p>	<p>11. Learn to use the basic principles of a healthy and varied diet to prepare dishes.</p> <p>12. Understand where food comes from.</p>	<p>10. Understand and apply the principles of a healthy, balanced and varied diet to their design.</p> <p>11. Prepare and cook a variety of predominantly a range of savoury dishes using a range of cooking techniques.</p> <p>12. Explore a variety of bread-based products and a variety of pizza toppings.</p> <p>13. Work safely and hygienically.</p> <p>14. Evaluate their pizza once they have been made, do they meet their design?</p>	<p>12. Understand and apply the principles of a healthy and varied diet.</p> <p>13. Prepare and cook a healthy savoury dish using seasonal vegetables.</p> <p>14. Know how farming methods can slow down or speed up the farming process.</p> <p>15. Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.</p>	<p>12. Explore, discuss and describe different types of biscuits (using their senses), consider: favourite type and purpose.</p> <p>13. Design a biscuit with a particular purpose in mind.</p> <p>14. Work safely and hygienically.</p> <p>15. Evaluate the design process and taste their biscuit – consider how it could be improved.</p>	<p>15. Research existing edible houses and use the inspiration to design their own gingerbread house.</p> <p>16. Include features and measurements to meet the design criteria, how many biscuits will they need – make note of any amendments</p> <p>17. Sketch and label their own design, consolidate their ideas into a final group design.</p> <p>18. Translate their design into working pattern pieces (using a computer to construct an accurate floor plan)</p>



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							<p>19. Discuss and use appropriate skills/techniques/tools e.g. piping to construct and decorate their edible house.</p> <p>20. Evaluate each other's work, give and receive feedback from peers about their edible house, use this feedback when evaluating.</p>
<b>Maths Links</b>	Sorting opportunities and Venn Diagrams	<b>Position and Direction</b> – Vocabulary forwards, backwards, left, right turns	<b>Position and Direction</b> - Vocabulary -Clockwise, Anticlockwise, full and half turns, three quarter turns to describe patterns.  Tally Charts, Pictograms, Block Diagrams	<b>Position and Direction (Recap Y2)</b> - Clockwise, Anticlockwise, full and half turns, three quarter turns to describe patterns.  Tally charts, Draw bar charts, Draw pictograms, Tables	<b>Position and Direction</b> - Vocabulary  Interpret charts, introducing line graphs.	<b>Position and Direction</b> - Vocabulary  Draw line graphs, read, and interpret line graphs, read and interpret tables, two-way tables.	<b>Position and Direction</b> - Vocabulary and negative numbers.  Line graphs, dual bar graphs, read and interpret pie charts, pie charts with percentages, draw pie charts.