



**The Limes Primary Academy – Learning Pathways Curriculum**  
**Design Technology Progression Map**



	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p><b>National Curriculum</b></p> <p><i>Pupils should be taught:</i></p>	<p>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</p>	<p><b>Design</b></p> <ul style="list-style-type: none"> <li>to design purposeful, functional, appealing products for themselves and other users based on design criteria</li> <li>to generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</li> </ul> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>to select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</li> </ul> <p><b>Evaluate</b></p> <ul style="list-style-type: none"> <li>to explore and evaluate a range of existing products</li> <li>to evaluate their ideas and products against design criteria</li> </ul> <p><b>Technical knowledge</b></p> <ul style="list-style-type: none"> <li>to build structures, exploring how they can be made stronger, stiffer and more stable</li> <li>to explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products</li> </ul> <p><b>Cooking and nutrition</b></p> <ul style="list-style-type: none"> <li>to cook and apply the principles of nutrition and healthy eating</li> <li>to use the basic principles of a healthy and varied diet to prepare dishes understand where food comes from.</li> </ul>	<p><b>Design</b></p> <ul style="list-style-type: none"> <li>use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups</li> <li>generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.</li> </ul> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</li> <li>select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.</li> </ul> <p><b>Evaluate</b></p> <ul style="list-style-type: none"> <li>investigate and analyse a range of existing products</li> <li>evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</li> <li>understand how key events and individuals in design and technology have helped shape the world.</li> </ul> <p><b>Technical</b></p> <ul style="list-style-type: none"> <li>knowledge apply their understanding of how to strengthen, stiffen and reinforce more complex structures</li> <li>understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</li> <li>understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]</li> <li>apply their understanding of computing to program, monitor and control their products.</li> </ul> <p><b>Cooking and nutrition</b></p> <ul style="list-style-type: none"> <li>understand and apply the principles of a healthy and varied diet</li> </ul>				



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By the end of the year, children should be able to...							
<b>Materials</b>	talk with others about how they want to construct their product	develop their own ideas from initial starting points	use stiff and flexible sheet materials to choose the most appropriate materials	use stiff and flexible sheet materials	use measurements accurately enough to ensure that everything is precise	justify why they selected specific materials	
	select appropriate resources and tools for their building projects	measure materials to use in a model or structure	work accurately to make cuts and holes	measure carefully so as to make sure they have not made mistakes	ensure that their product is strong and fit for purpose	work within a budget	
	make simple plans before making objects, e.g. drawings, arranging pieces of construction before building	join materials in different ways	join materials	attempt to make their product strong and fit for purpose		ensure that their work is precise and accurate	
		use joining, folding or rolling to make a product stronger				hide joints so as to improve the look of their product	
<b>Mouldable Materials</b>	make a structure or model using different materials	develop their own ideas from initial starting points	select the most appropriate materials for the product	consider how to make their product strong	refine and improve the product	consider the use of the product when selecting materials	
	keep their work tidy	join materials together as part of a moving product	use a range of techniques to shape and mould materials	devise a template	persevere through the different stages of the making process	ensure the product meet all design criteria	
	make their model stronger if it needs to be	add some kind of design to their product	use finishing techniques appropriate for intended outcome	explain how to join things in a different way			
		measure materials to use in a model or structure		present their product in an interesting way			
		join materials in different ways		measure carefully so as to make sure they have not made mistakes			
		use joining, folding or rolling to make it stronger		attempt to make their product strong			



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<p><b>Textiles</b></p>		<p>describe how different textiles feel</p> <p>describe how different textiles feel</p> <p>make a product from textiles by gluing</p>	<p>measure, cut and join together textiles to make something</p> <p>explain why they chose a certain textiles</p>	<p>join textiles of different types in different ways</p> <p>to choose textiles both for their appearance and also qualities</p>	<p>consider what the user would want when choosing textiles</p> <p>consider how to make the product strong</p> <p>devise a template</p> <p>to explain how to join things in a different way</p>	<p>consider the user when choosing textiles</p> <p>make the product attractive and strong</p> <p>make up a prototype first</p> <p>use a range of joining techniques</p>	<p>think about how their product could be sold</p> <p>give considered thought about what would improve their product even more</p>
<p><b>Mechanisms</b></p>		<p>make a product which moves</p> <p>cut materials using scissors</p> <p>describe the materials using different words</p> <p>say why they have chosen moving parts</p>	<p>join materials together as part of a moving product</p> <p>add some kind of design to their product</p>	<p>to use electrical and mechanical components to select the most appropriate tools and techniques to use for a given task</p> <p>to make a product which uses both electrical and mechanical components</p> <p>to use a simple circuit</p> <p>to use a number of components</p>	<p>build with electrical and mechanical components</p> <p>make circuits with buzzers and alarms</p> <p>add additional elements to their circuits</p> <p>alter their product after checking it</p> <p>be confident about trying out new and different ideas</p>	<p>incorporate a switch into their product</p> <p>refine their product after testing it</p> <p>incorporate hydraulics and pneumatics</p>	<p>use different kinds of circuits in their product</p> <p>think of ways in which adding a circuit would improve their product</p>



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<p><b>Construction</b></p>		<p>make a structure/model using different materials</p> <p>make their model stronger if it needs to be</p> <p>cut materials using scissors</p> <p>describe the materials using different words</p>	<p>develop their own ideas from initial starting points</p> <p>measure materials to use in a model or structure</p> <p>join materials in different ways</p> <p>use joining, folding or rolling to make it stronger</p>	<p>use stiff and flexible sheet materials to choose the most appropriate materials</p> <p>work accurately to make cuts and holes</p> <p>join materials</p>	<p>find a way to make their product strong</p> <p>devise a template explain how to join things in a different way</p> <p>think about what they can do to present their product in an interesting way</p> <p>measure carefully so as to make sure they have not made mistakes</p> <p>attempt to make their product strong</p>	<p>measure accurately and precisely</p> <p>use a range of joining techniques</p> <p>ensure that their product is strong and fit for purpose</p>	<p>consider the use of the product when selecting materials</p> <p>ensure product meets design criteria</p> <p>consider how their product could be sold to give considered thought about what would improve their product even more</p> <p>justify why they selected specific materials</p> <p>work within a budget</p> <p>ensure that their work is precise and accurate</p> <p>hide joints so as to improve the look of their product</p>
<p><b>Cooking and Nutrition</b></p>		<p>cut food safely</p> <p>describe the texture of foods</p> <p>wash their hands and make sure that surfaces are clean</p> <p>think of interesting ways of decorating food they have made</p>	<p>describe the properties of the ingredients they are using</p> <p>explain what it means to be hygienic and demonstrate this</p>	<p>choose the right ingredients for a product</p> <p>use equipment safely</p> <p>make sure that their product looks attractive</p> <p>describe how their combined ingredients come together</p> <p>set out to grow plants such as cress and herbs from seed with the intention of using them for their food product</p>	<p>demonstrate how to be hygienic and safe when cooking</p> <p>present their product in an interesting way</p>	<p>describe what they do to be both hygienic and safe</p> <p>ensure their product is presented well</p>	<p>explain how their product should be stored with reasons</p> <p>set out to grow their own products taking account of time required to grow different foods</p>



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**Knowledge**

Each unit has key and 'sticky' knowledge. These are the facts that children should know by the end of each unit. Those in **bold** are classed as the knowledge children HAVE TO acquire by the end of each unit. Those in italics refer to knowledge on children's subject map. Whilst these remain the same over each phase, they allow for the progression of skills as outlined above, in both cycles.

Cycle A		Cycle B	
Y1	<p><b>Can I make a Tudor house similar to those which burnt down in the Great Fire of London?</b>  <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li><b>Know how to select appropriate resources and tools for their building project</b></li> <li><b>Know how to make simple plans before the construction of their building</b></li> <li>Know how to talk about their ideas with peers</li> <li>Know what a Tudor house looked like, were made from and why they burned easily</li> </ul>	<p><b>Can I make the furniture for a tea party with The Tiger Who Came to Tea?</b>  <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li><b>Know how they want to construct their product</b></li> <li><b>Know how to select appropriate resources and tools for their building projects</b></li> <li><b>Know how to make simple plans before making objects</b></li> <li>Know what furniture might be used at a tea party...with a tiger!</li> </ul>	
	<p><b>Can I make something for our toys to eat their dinner on?</b>  <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li><b>Know how to make a structure/model using different materials</b></li> <li><b>Know how to make their model stronger if it needs to be</b></li> <li><b>Know how to keep their work tidy</b></li> <li>Know how to scale their product to the size of a toy</li> </ul>	<p><b>Can I design a hat for a teddy/the tiger to wear whatever the weather?</b>  <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li><b>Know how to describe how different textiles feel</b></li> <li><b>Know how to make a product from textiles by gluing</b></li> <li>Know how to select a material for its waterproof/resistant properties</li> </ul>	
	<p><b>Can I make a pop up or moving Valentines, Easter or Chinese New Year Card?</b>  <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li><b>Know how to make a product which moves</b></li> <li><b>Know how to cut materials using scissors</b></li> <li><b>Know how to describe the materials using different words</b></li> <li><b>Know how to say why they have chosen moving parts</b></li> <li>Know the reasons behind the celebration the card is for</li> </ul>	<p><b>Can I make a pop up or moving picture for We're Going on a Bear Hunt?</b>  <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li><b>Know how to make a product which moves</b></li> <li><b>Know how to cut materials using scissors</b></li> <li><b>Know how to describe the materials using different words</b></li> <li><b>Know how to say why they have chosen moving parts</b></li> <li>Know why adding movement to the pictures in 'Bear Hunt' will add interest to the story</li> </ul>	
	<p><b>Can I repurpose an item of clothing into something useful?</b>  <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li><b>Know how to describe how different textiles feel</b></li> <li><b>Know how to make a product from textiles by gluing</b></li> <li>Know how to identify reusable or recyclable materials and why repurposing is a good thing for the environment</li> </ul>	<p><b>What else could the Three Little Pigs have made their houses from?</b>  <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li><b>Know how to make a structure/model using different materials</b></li> <li><b>Know how to make their model stronger if it needs to be</b></li> <li><b>Know how to keep their work tidy</b></li> <li>Know how to scale their product to the size of a toy</li> </ul>	
	<p><b>Can I make a healthy fruit salad for a beach outing?</b>  <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li><b>Know how to cut food safely</b></li> <li><b>Know how to describe the texture of foods</b></li> <li><b>Know how to wash their hands and make sure that surfaces are clean</b></li> <li>Know how to present their fruit salad in an interesting way</li> </ul>	<p><b>Can I make a fruit salad for a midnight feast, sleeping under the stars?</b>  <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li><b>Know how to cut food safely</b></li> <li><b>Know how to describe the texture of foods</b></li> <li><b>Know how to wash their hands and make sure that surfaces are clean</b></li> <li>Know how to present their fruit salad in an interesting way</li> </ul>	
	<p><b>Can I build a model sea defence which will slow or redirect water?</b>  <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li><b>Know how to make a structure/model using different materials</b></li> <li><b>Know how to make their model stronger if it needs to be</b></li> <li><b>Know how to cut materials using scissors</b></li> <li>Know why sea defences are important on the East Coast of England</li> </ul>	<p><b>Can I make something for my toy to eat a midnight feast on?</b>  <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li><b>Know how to make a structure/model using different materials</b></li> <li><b>Know how to make their model stronger if it needs to be</b></li> <li><b>Know how to keep their work tidy</b></li> <li>Know how to scale their product to the size of a toy</li> </ul>	



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Cycle B		Cycle A	
Y2	<p align="center"><b>Can I make a predator with a mouth that moves and can bite?</b>  <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li>• Know how to join materials together as part of a moving product</li> <li>• Know how to add some kind of design to their product</li> <li>• Know the difference between the teeth of carnivores and herbivores</li> </ul>	<p align="center"><b>Can I make a Tudor house similar to those which burnt down in the Great Fire of London?</b>  <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li>• Know how to develop their own ideas from initial starting points</li> <li>• Know how to measure materials to use in a model or structure</li> <li>• Know how to join materials in different ways</li> <li>• Know how to use joining, folding or rolling to make it stronger</li> <li>• Know what a Tudor house looked like, were made from and why they burned easily</li> </ul>	
	<p align="center"><b>Can I make an animal finger puppet to retell a story?</b>  <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li>• Know how to measure, cut and join together textiles to make something</li> <li>• Know how to explain why they chose a certain textiles</li> <li>• Know how to retell a story and use their finger puppet character</li> </ul>	<p align="center"><b>Can I make some healthy sandwiches for a Grandparents Tea Party?</b>  <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li>• Know how to describe the properties of the ingredients they are using</li> <li>• Know how to explain what it means to be hygienic and demonstrate this</li> <li>•</li> </ul>	
	<p align="center"><b>Can I make a musical instrument to entertain the Royal court?</b>  <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li>• Know how to develop their own ideas from initial starting points</li> <li>• Know how to measure materials to use in a model or structure</li> <li>• Know how to join materials in different ways</li> <li>• Know how to use joining, folding or rolling to make it stronger</li> <li>• Know about the kind of music played in the Tudor court</li> </ul>	<p align="center"><b>Can I use recycled materials to make a musical instrument?</b>  <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li>• Know how to develop their own ideas from initial starting points</li> <li>• Know how to measure materials to use in a model or structure</li> <li>• Know how to join materials in different ways</li> <li>• Know how to use joining, folding or rolling to make it stronger</li> <li>• Know why it's important to use recycled materials when making a new product</li> </ul>	
	<p align="center"><b>Can I make a name sign for the bedroom of a King or Queen?</b>  <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li>• Know how to measure materials to use in a model or structure</li> <li>• Know how to join material in different ways</li> <li>• Know how to use joining, folding or rolling to make it stronger</li> </ul>	<p align="center"><b>Can I make a name sign for my bedroom door?</b>  <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li>• Know how to measure materials to use in a model or structure</li> <li>• Know how to join material in different ways</li> <li>• Know how to use joining, folding or rolling to make it stronger</li> </ul>	
	<p align="center"><b>Can I make a healthy sandwich to enjoy as part of a midnight feast?</b>  <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li>• Know how to describe the properties of the ingredients they are using</li> <li>• Know how to explain what it means to be hygienic and demonstrate this</li> <li>• 11B411 Sleeping Under the Stars</li> </ul>	<p align="center"><b>Can I make an underwater predator with a deadly mouth?</b>  <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li>• Know how to join materials together as part of a moving product</li> <li>• Know how to add some kind of design to their product</li> <li>• Know some of the deadly predators found in the ocean</li> </ul>	
	<p align="center"><b>Can I create a boat that could float on the river Thames?</b>  <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li>• Know how to develop their own ideas from initial starting points</li> <li>• Know how to measure materials to use in a model or structure</li> <li>• Know how to join material in different ways</li> <li>• Know how to use joining, folding or rolling to make it stronger</li> <li>• Know where the river Thames is located and why rivers are important to cities</li> </ul>	<p align="center"><b>Can I make a boat that floats?</b>  <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li>• Know how to develop their own ideas from initial starting points</li> <li>• Know how to measure materials to use in a model or structure</li> <li>• Know how to join material in different ways</li> <li>• Know how to use joining, folding or rolling to make it stronger</li> <li>• Know about boats and what makes the float or causes them to sink...Titanic link</li> </ul>	



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Cycle A		Cycle B		
Y3	<b>Can I make an Egyptian pyramid or a tomb?</b> <u>'Sticky Knowledge'</u>	<b>Can you make a bridge to help the Anglo Saxons escape from Viking invaders?</b>		
	<ul style="list-style-type: none"> <li>Know how to use stiff and flexible sheet materials choosing the most appropriate materials</li> <li>Know how to work accurately to make cuts and holes</li> <li>Know how to join materials</li> <li>Know about Egyptian pyramids, how they were made, and replicate them in a model</li> </ul>	<ul style="list-style-type: none"> <li>Know how to use stiff and flexible sheet materials choosing the most appropriate materials</li> <li>Know how to work accurately to make cuts and holes</li> <li>Know how to join materials</li> <li>Know about the origin and lifestyle of the Anglo-Saxons and the Vikings</li> </ul>		
	<b>Can I make a jewellery container/treasure box?</b> <u>'Sticky Knowledge'</u>	<b>Can you treasure/jewellery box to store precious things?</b> <u>'Sticky Knowledge'</u>		
	<ul style="list-style-type: none"> <li>Know to select the most appropriate materials for the product</li> <li>Know to use a range of techniques to shape and mould materials</li> <li>Know to use finishing techniques appropriate for intended outcome</li> <li>Know about the treasures discovered in Egyptian tombs and why they were buried</li> </ul>	<ul style="list-style-type: none"> <li>Know to select the most appropriate materials for the product</li> <li>Know to use a range of techniques to shape and mould materials</li> <li>Know to use finishing techniques appropriate for intended outcome</li> </ul>		
	<b>Can I make a meal similar to what the Ancient Egyptians would have eaten?</b> <u>'Sticky Knowledge'</u>	<b>Can you make meal from another time?</b> <u>'Sticky Knowledge'</u>		
	<ul style="list-style-type: none"> <li>Know how to choose the right ingredients for a product</li> <li>Know how to use equipment safely</li> <li>Know how to make sure that their product looks attractive</li> <li>Know how to describe how their combined ingredients come together</li> <li>Know how to set out to grow plants such as cress and herbs from seed with the intention of using them for their food product</li> <li>Know about the similarities and differences between the Egyptian diet and present diet.</li> </ul>	<ul style="list-style-type: none"> <li>Know how to choose the right ingredients for a product</li> <li>Know how to use equipment safely</li> <li>Know how to make sure that their product looks attractive</li> <li>Know how to describe how their combined ingredients come together</li> <li>Know how to set out to grow plants such as cress and herbs from seed with the intention of using them for their food product</li> <li>Know about the similarities and differences between modern and historical diets</li> </ul>		
	<b>Can I make an interactive book to explain the digestive system?</b> <u>'Sticky Knowledge'</u>	<b>Can I make an interactive Robot?</b> <u>'Sticky Knowledge'</u>		
	<ul style="list-style-type: none"> <li>Know how to use electrical and mechanical components to select the most appropriate tools and techniques to use for a given task</li> <li>Know how to make a product which uses both electrical and mechanical components</li> <li>Know how to use a simple circuit and a number of components</li> <li>Know about the digestion process and be able to describe it</li> </ul>	<ul style="list-style-type: none"> <li>Know how to use electrical and mechanical components to select the most appropriate tools and techniques to use for a given task</li> <li>Know how to make a product which uses both electrical and mechanical components</li> <li>Know how to use a simple circuit and a number of components</li> <li>Know about the possible role of robots in the future</li> </ul>		
<b>Can I design a cushion for a 1<sup>st</sup> Class passenger on The Titanic?</b> <u>'Sticky Knowledge'</u>	<b>Can I design a cushion for an evacuee from Pompeii?</b> <u>'Sticky Knowledge'</u>			
<ul style="list-style-type: none"> <li>Know how to join textiles of different types in different ways</li> <li>Know how to choose textiles both for their appearance and also qualities</li> <li>Know about the different ticket classes aboard the Titanic and what that meant for the experience of the passengers on the voyage</li> </ul>	<ul style="list-style-type: none"> <li>Know how to join textiles of different types in different ways</li> <li>Know how to choose textiles both for their appearance and also qualities</li> <li>Know about the disaster of Pompeii</li> </ul>			
<b>Can I design a way to keep an egg safe on its journey across the Atlantic Ocean?</b> <u>'Sticky Knowledge'</u>	<b>Can you design a way to keep a dragon's egg safe?</b> <u>'Sticky Knowledge'</u>			
<ul style="list-style-type: none"> <li>Know how to use stiff and flexible sheet materials to choose the most appropriate materials</li> <li>Know how to work accurately to make cuts and holes and join materials</li> <li>Know what the journey for an egg on the Titanic was likely to involve</li> </ul>	<ul style="list-style-type: none"> <li>Know how to use stiff and flexible sheet materials to choose the most appropriate materials</li> <li>Know how to work accurately to make cuts and holes and join materials</li> <li>Know what properties a nest has and why they are built the way they are</li> </ul>			



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Cycle B		Cycle A	
Y4	<p align="center"><b>Can I find a way to make roof tiles stick to an Anglo-Saxon shelter?</b>  '<u>Sticky Knowledge</u>'</p> <ul style="list-style-type: none"> <li>Know how to make their product strong, to devise a template and explain how to join things in a different way</li> <li>Know how to present their product in an interesting way</li> <li>Know to measure carefully so as to make sure they have not made mistakes</li> <li>Know about the materials and techniques used in Anglo-Saxon shelters</li> </ul>	<p align="center"><b>Can I find a way to make roof tiles stick to an Egyptian Pyramid?</b>  '<u>Sticky Knowledge</u>'</p> <ul style="list-style-type: none"> <li>Know how to make their product strong, to devise a template and explain how to join things in a different way <ul style="list-style-type: none"> <li>Know how to present their product in an interesting way</li> </ul> </li> <li>Know to measure carefully so as to make sure they have not made mistakes</li> <li>Know about the materials and techniques used in Egyptian Pyramids</li> </ul>	
	<p align="center"><b>Can I make an alarm system to catch a Viking raider and stop them from stealing treasure?</b>  '<u>Sticky Knowledge</u>'</p> <ul style="list-style-type: none"> <li>Know how to build with electrical and mechanical components, make circuits with buzzers and alarms</li> <li>Know to add additional elements to their circuits and to alter their product after checking it</li> <li>Be confident about trying out new and different ideas</li> <li>Know about the lifestyle of the Vikings and what brought them to the shores of the UK</li> </ul>	<p align="center"><b>Can I make an alarm system to catch an Egyptian tomb thief?</b>  '<u>Sticky Knowledge</u>'</p> <ul style="list-style-type: none"> <li>Know how to build with electrical and mechanical components, make circuits with buzzers and alarms</li> <li>Know to add additional elements to their circuits and to alter their product after checking it</li> <li>Be confident about trying out new and different ideas</li> <li>Know about the beliefs of the Egyptians and why they buried their people with treasure?</li> </ul>	
	<p align="center"><b>Can I make a meal for a stone age/bronze age family?</b>  '<u>Sticky Knowledge</u>'</p> <ul style="list-style-type: none"> <li>Know how to demonstrate how to be hygienic and safe when cooking</li> <li>Know how to present their product in an interesting way</li> <li>Know about the differences in diets in the modern day and in the past</li> </ul>	<p align="center"><b>Can I make my favourite healthy pizza?</b>  '<u>Sticky Knowledge</u>'</p> <ul style="list-style-type: none"> <li>Know how to demonstrate how to be hygienic and safe when cooking</li> <li>Know how to present their product in an interesting way</li> <li>Know about 5 a day and how they can be incorporated into a really yummy meal!</li> </ul>	
	<p align="center"><b>Can I make a box to store food in?</b>  '<u>Sticky Knowledge</u>'</p> <ul style="list-style-type: none"> <li>Know how to use stiff and flexible sheet materials</li> <li>Know how to measure carefully to make sure they have not made mistakes</li> <li>Know how to attempt to make their product strong and fit for purpose</li> </ul>	<p align="center"><b>Can I make a box to take my pizza home in?</b>  '<u>Sticky Knowledge</u>'</p> <ul style="list-style-type: none"> <li>Know how to use stiff and flexible sheet materials</li> <li>Know how to measure carefully to make sure they have not made mistakes</li> <li>Know how to attempt to make their product strong and fit for purpose</li> </ul>	
	<p align="center"><b>Can I make a "bag for life" that could be used to evacuate a disaster zone?</b>  '<u>Sticky Knowledge</u>'</p> <ul style="list-style-type: none"> <li>Know how to consider what the user would want when choosing textiles</li> <li>Know how to consider how to make the product strong</li> <li>Know how to devise a template</li> <li>Know how join things in a different way</li> <li>Know about global disaster and how they affect the people who live in those places</li> </ul>	<p align="center"><b>Can I make a "bag for life" that could be used by a passenger on the Titanic?</b>  '<u>Sticky Knowledge</u>'</p> <ul style="list-style-type: none"> <li>Know how to consider what the user would want when choosing textiles</li> <li>Know how to consider how to make the product strong</li> <li>Know how to devise a template</li> <li>Know how join things in a different way</li> <li>Know about the voyage on the Titanic and the reasons why some passengers had a one way ticket</li> </ul>	
	<p align="center"><b>Can I make a robot with moving parts and eyes that light up?</b>  '<u>Sticky Knowledge</u>'</p> <ul style="list-style-type: none"> <li>Know how to make their product strong and explain how to join things in a different way</li> <li>Know how to make a template for their product</li> <li>Know how to build with electrical and mechanical components</li> <li>Know what they can do to present their product in an interesting way</li> <li>Know how to measure carefully to make sure they have not made mistakes</li> <li>Know about the possible role of robots in the future</li> </ul>	<p align="center"><b>Can I make a kite to fly at the beach</b>  '<u>Sticky Knowledge</u>'</p> <ul style="list-style-type: none"> <li>Know how to find a way to make their product strong</li> <li>Know how to devise a template and explain how to join things in a different way</li> <li>Know how to present their product in an interesting way</li> <li>to measure carefully to make sure they have not made mistakes</li> <li>Know about the best conditions and techniques for kite flying</li> </ul>	



**The Limes Primary Academy – Learning Pathways Curriculum**  
**Design Technology Progression Map**



Cycle A		Cycle B	
Y5	<p align="center"><b>Can I make a boat that fits under a bridge to enable an escape from a WW2 enemy?</b> <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li>Know how to incorporate a switch into their product</li> <li>Know how to refine their product after testing it</li> <li>Know how to incorporate hydraulics and pneumatics</li> <li>Know about the WW2 conflict and engagement between the various sides</li> </ul>	<p align="center"><b>Can I make a boat that fits under a bridge to enable Charles Darwin to investigate rivers?</b> <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li>Know how to incorporate a switch into their product</li> <li>Know how to refine their product after testing it</li> <li>Know to incorporate hydraulics and pneumatics</li> <li>Know about the adventures and discoveries of Charles Darwin</li> </ul>	
	<p align="center"><b>Can I use papier mache to make a 3D map of a WW2 location?</b> <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li>to refine and improve the product</li> <li>to persevere through the different stages of the making process</li> <li>Know how high and low ground is shown on a 2D map.</li> </ul>	<p align="center"><b>Can I use papier mache to make a 3D map the Galapagos Islands?</b> <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li>to refine and improve the product</li> <li>to persevere through the different stages of the making process</li> <li>Know how high and low ground is shown on a 2D map.</li> </ul>	
	<p align="center"><b>Can I make some gloves to keep the pioneers' hands warm in cold weather?</b> <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li>Know how to consider the user when choosing textiles</li> <li>Know how to make the product attractive and strong</li> <li>Know how to make up a prototype first</li> <li>Know how to use a range of joining techniques</li> <li>Know about the insulating properties of different materials</li> </ul>	<p align="center"><b>Can I make some gloves to wear as part of a Shakespeare play costume?</b> <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li>Know how to consider the user when choosing textiles</li> <li>Know how to make the product attractive and strong</li> <li>Know how to make up a prototype first</li> <li>Know how to use a range of joining techniques</li> <li>Know about the materials and costumes that Shakespearian actors would have worn</li> </ul>	
	<p align="center"><b>Can I make some bread to feed a family of pioneers?</b> <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li>Know how to describe what they do to be both hygienic and safe</li> <li>Know how to ensure their product is presented well</li> <li>Know about traditional breads from different parts of the world</li> </ul>	<p align="center"><b>Can I make some bread to feed a Tudor family?</b> <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li>Know how to describe what they do to be both hygienic and safe</li> <li>Know how to ensure their product is presented well</li> <li>Know about the kind of bread made and available to Tudor families</li> </ul>	
	<p align="center"><b>Can I make a model plane? How far can it fly?</b> <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li>Know how to use measurements accurately enough to ensure that everything is precise</li> <li>Know how to ensure that their product is strong and fit for purpose</li> <li>Know how and why real aeroplanes are able to fly</li> </ul>	<p align="center"><b>Can I make a model plane or rocket? How far can it fly?</b> <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li>Know how to use measurements accurately enough to ensure that everything is precise</li> <li>Know how to ensure that their product is strong and fit for purpose</li> <li>Know how and why real aeroplanes are able to fly</li> </ul>	
	<p align="center"><b>Can I make a safe place for birds to hatch their eggs?</b> <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li>Know how to measure accurately and precisely</li> <li>Know how to use a range of joining techniques</li> <li>Know how to ensure that their product is strong and fit for purpose</li> <li>Know what different types of birds consider a safe place for their eggs to be laid and why</li> </ul>	<p align="center"><b>Can I make a model theme park ride with moving parts?</b> <u>'Sticky Knowledge'</u></p> <ul style="list-style-type: none"> <li>Know how to measure accurately and precisely</li> <li>Know how to use a range of joining techniques</li> <li>Know how to ensure that their product is strong and fit for purpose</li> <li>Know what different types of birds consider a safe place for their eggs to be laid and why</li> </ul>	



**The Limes Primary Academy – Learning Pathways Curriculum**  
**Design Technology Progression Map**



Cycle B		Cycle A	
Y6	<b>Can I make a shelter to protect us from a storm on the Galapagos Islands?</b> <u>'Sticky Knowledge'</u>	<b>Can I make a shelter to protect us from a storm or an air raid?</b> <u>'Sticky Knowledge'</u>	
	<ul style="list-style-type: none"> <li>Know how to justify why they selected specific materials</li> <li>Know how to work within a budget</li> <li>Know how to ensure that their work is precise and accurate</li> <li>Know how to hide joints so as to improve the look of their product</li> <li>Know about materials and their properties and use these to inform their choices</li> </ul>	<ul style="list-style-type: none"> <li>Know how to justify why they selected specific materials</li> <li>Know how to work within a budget</li> <li>Know how to ensure that their work is precise and accurate</li> <li>Know how to hide joints so as to improve the look of their product</li> <li>Know about materials and their properties and use these to inform their choices</li> </ul>	
	<b>Can I design a soft toy which could comfort a younger Victorian Child?</b> <u>'Sticky Knowledge'</u>	<b>Can I design a soft toy which could comfort a young WW2 evacuee on their journey?</b> <u>'Sticky Knowledge'</u>	
	<ul style="list-style-type: none"> <li>Know to think about how their product could be sold</li> <li>Know to give considered thought about what would improve their product even more</li> <li>Know to consider the safety aspect of small parts in toys</li> </ul>	<ul style="list-style-type: none"> <li>Know to think about how their product could be sold</li> <li>Know to give considered thought about what would improve their product even more</li> <li>Know to consider the safety aspect of small parts in toys</li> </ul>	
	<b>Can I make a product to help keep a cat fit and healthy?</b> <u>'Sticky Knowledge'</u>	<b>Can I make a product to help keep a cat fit and healthy?</b> <u>'Sticky Knowledge'</u>	
	<ul style="list-style-type: none"> <li>Know how to consider the use of the product when selecting materials</li> <li>Know how to ensure product meets design criteria</li> <li>Know how to consider how their product could be sold to give considered thought about what would improve their product even more</li> <li>Know how to justify why they selected specific materials</li> <li>Know how to work within a budget</li> <li>Know how to ensure that their work is precise and accurate, hiding joints to improve the look of their product</li> <li>Know about the natural behaviours of cats and why keeping them fit is important</li> </ul>	<ul style="list-style-type: none"> <li>Know how to consider the use of the product when selecting materials</li> <li>Know how to ensure product meets design criteria</li> <li>Know how to consider how their product could be sold to give considered thought about what would improve their product even more</li> <li>Know how to justify why they selected specific materials</li> <li>Know how to work within a budget</li> <li>Know how to ensure that their work is precise and accurate, hiding joints to improve the look of their product</li> <li>Know about the natural behaviours of cats and why keeping them fit is important</li> </ul>	
	<b>Can I make a model theatre for a Shakespeare Play at The Globe?</b> <u>'Sticky Knowledge'</u>	<b>Can I make a model for a travelling theatrical show?</b> <u>'Sticky Knowledge'</u>	
	<ul style="list-style-type: none"> <li>Know how to use different kinds of circuits in their product</li> <li>Know how to think of ways in which adding a circuit would improve their product</li> <li>Know about The Globe Theatre, what was unique about it and its history</li> </ul>	<ul style="list-style-type: none"> <li>Know how to use different kinds of circuits in their product</li> <li>Know how to think of ways in which adding a circuit would improve their product</li> <li>Know about travelling shows in the time of the pioneers</li> </ul>	
<b>Can we grow our own salad?</b> <u>'Sticky Knowledge'</u>	<b>Can we grow our own salad?</b> <u>'Sticky Knowledge'</u>		
<ul style="list-style-type: none"> <li>Know how to explain how their product should be stored with reasons</li> <li>Know how to set out to grow their own products taking account of time required to grow different foods</li> <li>Know how easy or difficult might it be to grow salad on Mars</li> </ul>	<ul style="list-style-type: none"> <li>Know how to explain how their product should be stored with reasons</li> <li>Know how to set out to grow their own products taking account of time required to grow different foods</li> <li>Know how easy or difficult might it be to grow salad in the Arctic?</li> </ul>		
<b>Can I make a clay pot container which will help strawberries grow?</b> <u>'Sticky Knowledge'</u>	<b>Can I make a clay pot container which will help strawberries grow?</b> <u>'Sticky Knowledge'</u>		
<ul style="list-style-type: none"> <li>Know how to consider the use of the product when selecting materials</li> <li>Know how to ensure the product meet all design criteria</li> <li>Know about the best growing conditions for strawberries, and why they are called strawberries</li> </ul>	<ul style="list-style-type: none"> <li>Know how to consider the use of the product when selecting materials</li> <li>Know how to ensure the product meet all design criteria</li> <li>Know about the best growing conditions for strawberries, and why they are called strawberries</li> </ul>		