

What knowledge and skills the children will learn and the key vocabulary they will understand and be able to use					
Curriculum Strand	EYFS	Year One and Two	Year Three and Four	Year Five and Six	KS3
<b>Cooking and Nutrition</b>  <b>Topic 1</b> <b>Topic 2</b> <b>Taught as a part of the topic each year</b>	<b>Early learning goals:</b> <ul style="list-style-type: none"> <li>Importance of good health, of physical exercise and a healthy diet, and talk about ways to keep healthy and safe – some might make healthy choices in relation to healthy eating and exercise</li> <li>Take turns</li> <li>Try new activities and say why they like some more than</li> </ul>	<b>‘Preparing fruit and vegetables’</b> <b>Knowledge and skills:</b> <ul style="list-style-type: none"> <li>To know that all food comes from plants or animals</li> <li>To understand that food needs to be farmed, grown or caught – by farmers and in some homes</li> <li>To name and sort foods into the five groups in the ‘Eatwell Plate’</li> <li>Design a balanced meal (using knowledge from ‘The Eatwell Plate’)</li> <li>To understand that everyone should eat at least five portions of fruit and vegetables a day and why they are important</li> </ul>	<b>‘Healthy and varied diet’</b> <b>Knowledge and skills:</b> <ul style="list-style-type: none"> <li>To know what food is grown, reared and caught in the UK in different seasons</li> <li>To know that a healthy diet is made up from a variety and balance of different food and drink, as depicted in ‘The Eatwell Plate’ (learnt in KS1) – looking at nutritional labelling on foods (links to Y3 Science topic)</li> <li>To know that to be active and healthy, food and drink are needed to provide energy for the body.</li> <li>To know how to prepare and cook a variety of predominantly savoury dishes safely</li> </ul>	<b>‘Celebrating culture and seasonality’</b> <b>Knowledge and skills:</b> <ul style="list-style-type: none"> <li>To know what food is grown, reared and caught in Europe and the wider world</li> <li>To know that the seasons may affect the food available and why</li> <li>Why are we able to buy most foods all year round in supermarkets?</li> <li>To know how food is processed into ingredients that can be eaten or used in cooking</li> <li>To know that different food and drink contain different substances – nutrients, water and fibre that are needed for health</li> <li>To know 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>To know how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking (building on knowledge and skills from LKS2)</li> <li>To know that recipes can be adapted to change the appearance, taste, texture and aroma</li> </ul>	<b>Knowledge and skills (from NC):</b> <ul style="list-style-type: none"> <li>Understand and apply the principles of nutrition and health</li> <li>Cook a repertoire of predominantly savoury dishes so that they are able to feed themselves and others in a healthy and varied diet</li> <li>become competent in a range of cooking techniques [for example, selecting and preparing ingredients; using utensils and electrical</li> </ul>



# Oasis Academy Pinewood Horizontal Curriculum Progression Map

## Design and Technology



	<p>Knowledge and skills:</p>	<ul style="list-style-type: none"> <li>To use basic techniques of preparing vegetables e.g. cutting, peeling and grating</li> <li>Prepare simple dishes safely and hygienically</li> </ul>	<p>and hygienically including, where appropriate, the use of a heat source</p> <ul style="list-style-type: none"> <li>To know how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking (building on knowledge and skills from KS1)</li> </ul>		<p>equipment; applying heat in different ways; using awareness of taste, texture and smell to decide how to season dishes and combine ingredients; adapting and using their own recipes]</p> <ul style="list-style-type: none"> <li>understand the source, seasonality and characteristics of a broad range of ingredients</li> </ul>
<p><b>Designing: understanding contexts, users and purposes</b></p>	<p>When designing and making products children should be thinking about:</p> <ul style="list-style-type: none"> <li>user</li> <li>purpose</li> <li>function</li> <li>aesthetics</li> </ul>	<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> </ul>	<p>Across KS2:</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>	<ul style="list-style-type: none"> <li>Gather information about the needs and wants of the</li> <li>Carry out research, using surveys, interviews, questionnaires and web-based resources</li> </ul>	<ul style="list-style-type: none"> <li>Use research and exploration, such as the study of different cultures, to identify and understand user needs</li> </ul>



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		<ul style="list-style-type: none"> <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 criteria to help develop their ideas</li> </ul>	<ul style="list-style-type: none"> <li>• particular individuals and groups</li> <li>• Develop their own design criteria and use these to inform their ideas.</li> </ul>	<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>	<ul style="list-style-type: none"> <li>• Develop specifications to inform the design of innovative, functional, appealing products that respond to the needs in a variety of situations</li> </ul>
<b>Designing: generating, developing, modelling and communicating ideas</b>	Communicate designs verbally and physically arranging materials and components. Some children might draw their ideas before they make if they wish to.	<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,</li> </ul>	Across KS2: <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>	<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>	<ul style="list-style-type: none"> <li>• Identify and solve their own design problems and understand how to reformulate problems given to them.</li> <li>• Develop and communicate design ideas using annotated sketches,</li> </ul>
			<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</li> </ul>		



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		<p>components and construction kits and by making templates and mockups</p> <ul style="list-style-type: none"> <li>• use information and communication technology, where appropriate, to develop and communicate their ideas</li> </ul>	availability of resources		<p>detailed plans, 3D and mathematical modelling, oral and digital presentations and computer based tools</p>
<b>Making; planning</b>	<p>Children to design as they make. Designing and making is fluid. Children to be given opportunities to make their own choices/ decisions</p>	<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 materials and components according to their characteristics</li> </ul>	<p>Across KS2:</p> <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>		<ul style="list-style-type: none"> <li>• Select from and use specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided manufacture</li> <li>• Select from and use a wider, more complex range of materials, components and ingredients, taking into account their properties.</li> </ul>
			<ul style="list-style-type: none"> <li>• Order the main stages of making</li> </ul>	<ul style="list-style-type: none"> <li>• Produce appropriate lists of tools, equipment and materials that they will need</li> <li>• Formulate step-by-step plans as a guide to making</li> </ul>	
<b>Making; Practical skills and techniques</b>	<p>Practical skills and techniques should be taught directly.</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</li> </ul>	<p>Across KS2:</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>		
			<ul style="list-style-type: none"> <li>• Measure, mark out, cut and shape materials and</li> </ul>	<ul style="list-style-type: none"> <li>• Accurately measure, mark out, cut and shape materials and components</li> </ul>	



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		<p>materials and kits, textiles, food ingredients and mechanical components.</p> <ul style="list-style-type: none"> <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>components with some accuracy</p> <ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <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>	
<b>Evaluating; own ideas and products</b>	Evaluating should come verbally by discussing what is good and what could be improved next time.	<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 could be improved</li> </ul>	<p>Across KS2:</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>	<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>	<ul style="list-style-type: none"> <li>• Test, evaluate and refine their ideas and products against a specification, taking into account the views of intended users and other interested groups.</li> </ul>
			<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>		
	Have access to a range of real objects, pictures	<p>KS1 pupils should explore:</p> <ul style="list-style-type: none"> <li>• What products are</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> </ul>		<ul style="list-style-type: none"> <li>• Analyse the work of past and present</li> </ul>



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<b>Evaluating; existing products</b>	<p>and visits to places e.g. structures like bridges.</p> <p>Discuss them and what makes them effective and how they work.</p> <p>Children should be able to take the products apart and see inside.</p>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <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>professionals and others to develop and broaden their understanding</p> <ul style="list-style-type: none"> <li>Investigate new and emerging technologies</li> </ul>
			<p>LKS2 should also investigate and analysis:</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>	
<b>Evaluating; Key events and individuals</b>	<p>Not a requirement in EYFS</p>	<p>Not a requirement in KS1</p>	<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>	<ul style="list-style-type: none"> <li>Understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers and technologists</li> </ul>
			<p>Across KS2:</p>	



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<p><b>Technical knowledge; making products work</b></p>	<p>Children should hear and learn basic vocabulary and knowledge in line with their topic.</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> </ul>	<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> <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-</li> </ul>	<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> <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>	<ul style="list-style-type: none"> <li>• Understand and use the properties of materials and the performance of structural elements to achieve functioning solutions</li> <li>• Understand how more advanced mechanical systems used in their products enable changed in movement and force</li> <li>• Understand how more advanced electrical and electronic systems can be powered and used in their products</li> <li>• Apply computing and use of electronics to embed</li> </ul>
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## Oasis Academy Pinewood Horizontal Curriculum Progression Map

### Design and Technology



			cooked and processed.		intelligence in products that respond to inputs, and control outputs, using programmable components.
<b>Enrichment</b>			Trip to MOD pizza, Romford (linked to cooking and nutrition topic)		

### Appendix 1: Long Term Plan topics

#### Key Stage 1 (Milestone 1)

	Term 1	Term 2	Term 3
Year 1/2 A 2019-2020	<p><b>Food</b> Preparing fruit and vegetables (including cooking and nutrition requirements for KS1)</p> <p><b>Fruit kebabs</b></p>	<p><b>Structures</b> Freestanding structures</p> <p><b>Enclosure for a Koala</b></p>	<p><b>Mechanisms</b> Sliders and levers</p>
Year 1/2 B 2020-2021	<p><b>Food</b> Preparing fruit and vegetables (including cooking and nutrition requirements for KS1)</p>	<p><b>Mechanisms</b> Wheels and axles</p>	<p><b>Textiles</b> Templates and joining techniques</p>



# Oasis Academy Pinewood Horizontal Curriculum Progression Map

## Design and Technology



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### Early Key Stage 2 (Milestone 2)

	Term 1	Term 2	Term 3
Year 3/4 A 2019-2020	<p><b>Structures</b> Shell structures (including computer-aided design)</p>	<p><b>Food</b> Healthy and varied diet (including cooking and nutrition requirements for KS2)</p> <p><b>Salad (pasta/rice)</b></p>	<p><b>Textiles</b> 2-D shape to 3-D product</p> <p><b>Purses/phone holder/ties</b></p>
Year 3/4 B 2020-2021	<p><b>Mechanical Systems</b> Levers and linkages</p>	<p><b>Food</b> Healthy and varied diet (including cooking and nutrition requirements for KS2)</p> <p><b>Pastry</b></p>	<p><b>Electrical Systems</b> Simple circuits and switches (including programming and control)</p>

### Late Key Stage 2 (Milestone 3)

Term 1	Term 2	Term 3
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# Oasis Academy Pinewood Horizontal Curriculum Progression Map



## Design and Technology

Year 5/6 A  
2019-2020

**Structures**  
Frame structures

**Electrical Systems**  
More complex switches and circuits (including programming, monitoring and control)

**Food**  
Celebrating culture and seasonality (including cooking and nutrition requirements for KS2)

**Electrical board game**

**Bread**

Year 5/6 B  
2020-2021

**Textiles**  
Combining different fabric shapes (including computer-aided design)

**Mechanical Systems**  
Pulleys or gears

**Food**  
Celebrating culture and seasonality (including cooking and nutrition requirements for KS2)



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#### Appendix 2: Vocabulary KS1/KS2

	KS1	LKS2	UKS2
Food		name of products, names of equipment, utensils, techniques and ingredients, texture, taste, sweet, sour, hot, spicy, appearance, smell, preference, greasy, moist, cook, fresh, savoury, hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal, harvested, healthy/varied diet, planning, design criteria, purpose, user, annotated sketch, sensory evaluations	
Structures		Shell structures, 3D shape, net, cube, cuboid, prism, vertex, edge, face, length, width, breadth, capacity, marking out, scoring, shaping, tabs, adhesives, joining, assemble, accuracy, material, stiff, strong, reduce, reuse, recycle, corrugating, ribbing, laminating, font, lettering, test, graphics, decision, evaluating, design brief, design criteria, innovative, prototype	
Mechanisms/Mechanical systems		mechanism, lever, linkage, pivot, slot, bridge, guide, system, input, process, output, linear rotary, oscillating, reciprocating, user, purpose, function, prototype, design criteria, innovative, appealing, design brief	
Textiles		fabric, names of fabrics, fastening, compartment, zip, button, structure,	



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		finishing technique, strength, weakness, stiffening, templates, stitch, seam, seam allowance, user, purpose, design, model, evaluate, prototype, annotated sketch, functional, innovative, investigate, label, drawing, aesthetics, function, pattern pieces	
Electrical systems	N/A	series circuit, fault, connection, toggle switch, push-to-make switch, push to break switch, battery, battery holder, bulb, bulb holder, wire, insulator, conductor, crocodile clip, control, program, system, input device, output device, user, purpose, function, prototype, design criteria, innovative, appealing, design brief	