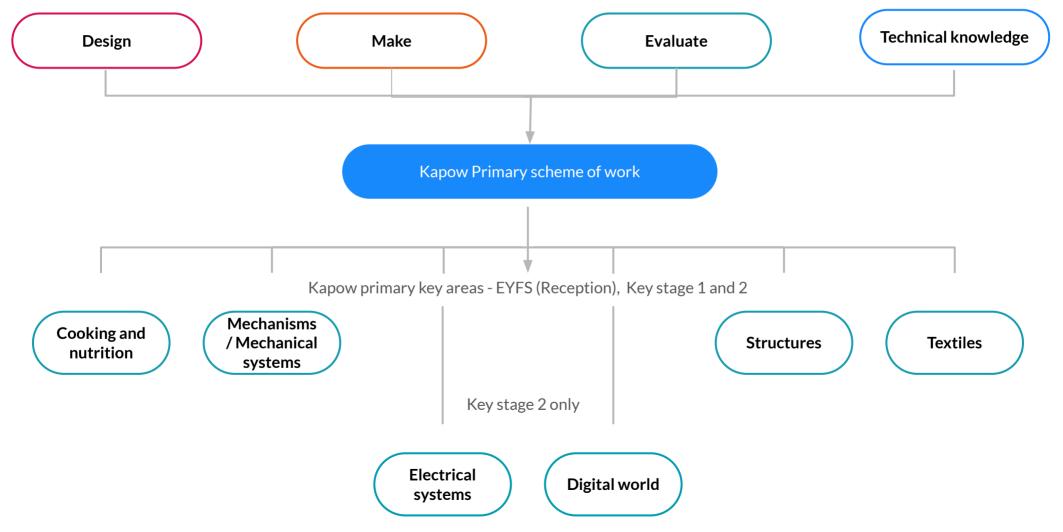


# Introduction

Kapow Primary offers full coverage of the KS1 and KS2 Design and technology curriculum and we have categorised our content into six areas, with four strands that run throughout:





	Cooking and nutrition	Mechanisms	Structures	Textiles	Electrical systems	Digital world				
Aside from Electrical systems and Digital world, which are taught in KS2 only, each of these acts as the focus for a unit within each year group										
EYFS (Reception)	Soup		Boats Junk modelling	Bookmarks						
Year 1	Smoothies	Moving storybook Wheels and axles	Constructing a windmill	Puppets						
Year 2	Balanced diet	Making a moving monster Fairground wheel	Baby bear's chair	Pouches						
Year 3	Eating seasonally	Pneumatic toys	Castles	Cross stitch and appliqué	Electric poster	Wearable technology				
Year 4	Adapting a recipe	Option 1: Mechanical cars Option 2: Making a slingshot car	Pavilions	Fastenings	Torches	Mindful moments timer				
Year 5	Developing a recipe	Option 1: Gears and pulleys Option 2: Pop-up book	Bridges	Stuffed toys	Doodlers	Monitoring devices				
Year 6	Come dine with me	Automata toys	Playgrounds	Waistcoats	Steady hand game	Navigating the world				

The four strands (below) of the Design and technology curriculum run through each unit; with Cooking and nutrition as the focus of one Food unit per year

D Design







#### Early years outcomes in Kapow Primary's units

Early Years Foundation Stage (Reception) Kapow Primary's units	Early years outcomes: Prime Areas Development Matters 2021 statements Early Learning Goals	Early years outcomes: Specific Areas Development Matters 2021 statements Early Learning Goals	Characteristics of effective learning
<u>Structures: Junk</u> <u>modelling</u>	Physical development -Develop small motor skills so that they can use a range of tools competently, safely and confidentlyELG: Fine Motor Skills> Use a range of small tools, including scissors, paint brushes and cutlery.	<ul> <li>Expressive Arts and Design</li> <li>Explore, use and refine a variety of artistic effects to express 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> <li>ELG: Creating with materials&gt; Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</li> <li>ELG: Creating with materials&gt; Share their creations, explaining the process they have used.</li> </ul>	<ul> <li>Playing and exploring</li> <li>Active learning</li> <li>Creating and thinking critically</li> </ul>
Food: Soup	Communication and language         -Learn new vocabulary.         -Use new vocabulary throughout the day.         -ELG: Speaking> Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary.         Personal, social and emotional development         -Know and talk about the different factors that support their overall health and wellbeing: healthy eating.         -ELG: Managing self> Manage their own basic hygiene and personal needs, including understanding the importance of healthy food choices.         Physical development         -Develop small motor skills so that they can use a range of tools competently, safely and confidently.         -ELG: Use a range of small tools, including scissors, paint brushes and cutlery.	<ul> <li>Understanding the world</li> <li>Explore the natural world around them.</li> <li>ELG: The Natural World&gt;Explore the natural world around them, making observations and drawing pictures of animals and plants.</li> <li>Expressive Arts and Design</li> <li>Explore, use and refine a variety of artistic effects to express ideas and feelings.</li> <li>ELG: Creating with materials&gt; Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</li> </ul>	<ul> <li>Playing and exploring</li> <li>Active learning</li> </ul>

#### Early years outcomes in Kapow Primary's units

Early Years Foundation Stage (Reception) Kapow Primary's units	Early years outcomes: Prime Areas Development Matters 2021 statements Early Learning Goals	Early years outcomes: Specific Areas Development Matters 2021 statements Early Learning Goals	Characteristics of effective learning
<u>Textiles: Bookmarks</u>	Physical development -Develop small motor skills so that they can use a range of tools competently, safely and confidentlyELG: Fine Motor Skills> Use a range of small tools, including scissors, paint brushes and cutlery.	<ul> <li>Expressive Arts and Design</li> <li>Explore, use and refine a variety of artistic effects to express ideas and feelings.</li> <li>Return to and build on their previous learning, refining ideas and developing their ability to represent them.</li> <li>ELG: Creating with materials&gt; Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</li> <li>ELG: Creating with materials&gt; Share their creations, explaining the process they have used.</li> </ul>	<ul> <li>✓ Playing and exploring</li> <li>✓ Active learning</li> <li>✓ Creating and thinking critically</li> </ul>
Structures: Boats	<ul> <li>Communication and language</li> <li>-Articulate their ideas and thoughts in well-formed sentences.</li> <li>-Connect one idea or action to another using a range of connectives.</li> <li>-Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen.</li> <li>-ELG: Speaking&gt; Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary.</li> <li>-ELG: Speaking&gt; Offer explanations for why things might happen.</li> </ul>	<ul> <li>Understanding the world</li> <li>Explore the natural world around them.</li> <li>ELG: The Natural World&gt;Explore the natural world around them, making observations and drawing pictures of animals and plants.</li> <li>Expressive Arts and Design</li> <li>Explore, use and refine a variety of artistic effects to express ideas and feelings.</li> <li>ELG: Creating with materials&gt; Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</li> <li>ELG: Creating with materials&gt; Share their creations, explaining the process they have used.</li> </ul>	<ul> <li>✓ Playing and exploring</li> <li>✓ Active learning</li> <li>✓ Creating and thinking critically</li> </ul>

		Kapow Primary topics Key stage 1 - Year 1						
Key Stage 1 - National curriculum Design and technology content	Kapow Primary's Design and technology strands	* <u>Moving</u> story books	* <u>Constructing</u> <u>a windmill</u>	* <u>Puppets</u>	*Option 1: *New* <u>Wheels</u> and axles *Option 2: <u>Wheels</u> and axles	* <u>Smoothies</u>		
Design purposeful, functional, appealing products for themselves and other users based on design criteria.	Design	~	~	~	~	~		
Generate, develop, model and communicate their ideas through talking, drawing, templates, mock- ups and, where appropriate, information and communication technology.	Design	~	~	~	~	~		
Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing].	Make	~	~	v	v	~		
Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.	Make	~	~	v	v	~		
Explore and evaluate a range of existing products.	Evaluate	~	~		~			
Evaluate their ideas and products against design criteria. *Units that are included in the condensed curriculum	Evaluate	~	~	v	~	~		

	Kapow Primary's Design and technology strands	Kapow Primary topics Key stage 1 - Year 1						
Key Stage 1 - National curriculum Design and technology content		* <u>Moving</u> story books	* <u>Constructing</u> <u>a windmill</u>	* <u>Puppets</u>	*Option 1: *New* <u>Wheels</u> and axles *Option 2: <u>Wheels</u> and axles	* <u>Smoothies</u>		
Build structures, exploring how they can be made stronger, stiffer and more stable.	Technical knowledge		V					
Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.	Technical knowledge	v	v		v			
Use basic principles of a healthy and varied diet to prepare dishes.	D M E							
Understand where food comes from.	D M E					~		

Key Stage 1 - National curriculum Design and technology	Kapow Primary's	Kapow Primary topics Key stage 1 - Year 2					
content	Design and technology strands	* <u>Moving</u> monsters	* <u>Baby</u> <u>bear's chair</u>	* <u>Pouches</u>	* <u>Fairground</u> wheel	* <u>Balanced</u> <u>diet</u>	
Design purposeful, functional, appealing products for themselves and other users based on design criteria.	Design	V	~	V	V	V	
Generate, develop, model and communicate their ideas through talking, drawing, templates, mock- ups and, where appropriate, information and communication technology.	Design	~	~	v	V	V	
Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing].	Make	V	~	V	~	V	
Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.	Make	V	~	V	v	V	
Explore and evaluate a range of existing products.	Evaluate	r		V	~	~	
Evaluate their ideas and products against design criteria.	Evaluate	~	~	~	~	~	

Key Stage 1 - National curriculum Design and technology	Kapow Primary's	Kapow Primary topics Key stage 1 - Year 2						
content	Design and technology strands	* <u>Moving</u> monsters	* <u>Baby</u> <u>bear's chair</u>	* <u>Pouches</u>	* <u>Fairground</u> <u>wheel</u>	* <u>Balanced</u> <u>diet</u>		
Build structures, exploring how they can be made stronger, stiffer and more stable.	Technical knowledge		v		~			
Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.	Technical knowledge	V			~			
Use basic principles of a healthy and varied diet to prepare dishes.	D M E					~		
Understand where food comes from.	D M E					~		

	Kapow Primary's Design and technology strands	Kapow Primary topics Lower key stage 2 - Year 3							
Key Stage 2 - National curriculum Design and technology content		* <u>Eating</u> <u>seasonally</u>	* <u>Castles</u>	<u>*Cross stitch</u> and appliqué	*Option 1: *New* <u>Pneumatic</u> <u>toys</u> *Option 2: <u>Pneumatic</u> <u>toys</u>	<u>Electric</u> poster	* <u>Wearable</u> <u>technology</u>		
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.	Design		v	~	~	v	v		
Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer- aided design.	Design	~	v	~	~	~	~		
Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately.	Make	~	~	~	~	~			
Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.	Make	~	~	~	~	~			
Investigate and analyse a range of existing products.	Evaluate		~		~		~		
Evaluate their ideas and products against their own design criteria *Units that are included in the scord in prove their work. and consider the views of others to disprove their work.	Evaluate		~	~	~	~	~		

	Kapow Primary's Design and technology strands	Kapow Primary topics Lower key stage 2 - Year 3						
Key Stage 2 - National curriculum Design and technology content		* <u>Eating</u> seasonally	* <u>Castles</u>	<u>*Cross</u> <u>stitch and</u> <u>appliqué</u>	*Option 1: *New* <u>Pneumatic</u> <u>toys</u> *Option 2: <u>Pneumatic</u> <u>toys</u>	<u>Electric</u> poster	* <u>Wearable</u> <u>technology</u>	
Understand how key events and individuals in design and technology have helped shape the world.	Evaluate				~		~	
Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.	Technical knowledge		v					
Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].	Technical knowledge				~			
Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors].	Technical knowledge					v		
Apply their understanding of computing to program, monitor and control their products.	Technical knowledge						~	
Understand and apply principles of a healthy and varied diet.	DME	~						
Prepare and cook variety of predominantly savoury dishes using a range of cooking techniques.	DME	~						
Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.	DME	~		*Units tha	at are included i	n the condens	ed curriculum	

		Kapow Primary topics Lower key stage 2 - Year 4							
Key Stage 2 - National curriculum Design and technology content		* <u>Pavilions</u>	* <u>Adapting a</u> <u>recipe</u>	* <u>Fastenings</u>	*Option 1: <u>Mechanical</u> <u>cars</u> *Option 2: <u>Making a</u> <u>slingshot car</u>	* <u>Torches</u>	<u>Mindful</u> <u>moments</u> <u>timer</u>		
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.	Design	~	~	~	~	~	~		
Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer- aided design.	Design	v	v	V	V	V			
Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately.	Make	~	~	V	~	~	~		
Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.	Make	~	~	~	~	~			
Investigate and analyse a range of existing products.	Evaluate	~	~	~	~	~	~		
Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.	Evaluate	~	~	~	~	~	~		

		Kapow Primary topics Lower key stage 2 - Year 4							
Key Stage 2 - National curriculum Design and technology content	Kapow Primary's Design and technology strands	* <u>Pavilions</u>	* <u>Adapting a</u> <u>recipe</u>	* <u>Fastenings</u>	*Option 1: <u>Mechanical</u> <u>cars</u> *Option 2: <u>Making a</u> <u>slingshot</u> <u>car</u>	* <u>Torches</u>	<u>Mindful</u> <u>moments</u> <u>timer</u>		
Understand how key events and individuals in design and technology have helped shape the world.	Evaluate				~	<b>v</b>			
Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.	Technical knowledge	V							
Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].	Technical knowledge				~				
Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors].	Technical knowledge					<b>v</b>			
Apply their understanding of computing to program, monitor and control their products.	Technical knowledge						<b>v</b>		
Understand and apply principles of a healthy and varied diet.	DME								
Prepare and cook variety of predominantly savoury dishes using a range of cooking techniques.	DME		~						
Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.	DME			*Units t	hat are included	l in the condens	ed curriculum		

	Kapow Primary's Design and technology strands	Kapow Primary topics Upper key stage 2 - Year 5						
Key Stage 2 - National curriculum Design and technology content		* <u>Developi</u> ng a recipe	*Option 1: <u>Gears and</u> <u>pulleys</u> *Option2: <u>Pop-up</u> <u>books</u>	<u>Stuffed</u> <u>toys</u>	* <u>Doodlers</u>	* <u>Bridges</u>	* <u>Monitoring</u> <u>devices</u>	
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.	Design	~	~	v	~	~	V	
Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer- aided design.	Design	~	~	v		V	V	
Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately.	Make	V	~	V	v	V		
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.	Make	~	~	~		<b>v</b>		
Investigate and analyse a range of existing products.	Evaluate	V	~	~	V	<b>v</b>		
Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.	Evaluate	V	~	~	~	~	V	

		Kapow Primary topics Upper key stage 2 - Year 5						
Key Stage 2 - National curriculum Design and technology content	Kapow Primary's Design and technology strands	* <u>Developi</u> ng a recipe	*Option 1: <u>Gears and</u> <u>pulleys</u> *Option 2: <u>Pop-up</u> <u>books</u>	<u>Stuffed</u> <u>toys</u>	* <u>Doodlers</u>	* <u>Bridges</u>	* <u>Monitoring</u> <u>devices</u>	
Understand how key events and individuals in design and technology have helped shape the world.	Evaluate	~					~	
Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.	Technical knowledge				~	~	V	
Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].	Technical knowledge		~					
Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors].	Technical knowledge				~			
Apply their understanding of computing to program, monitor and control their products.	Technical knowledge	V					V	
Understand and apply principles of a healthy and varied diet.	DME	~						
Prepare and cook variety of predominantly savoury dishes using a range of cooking techniques.	DME	~						
Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.	DME	~						

Key Stage 2 - National curriculum Design and	Kapow Primary's				<b>imary topics</b> tage 2 - <b>Year 6</b>		
technology content	Design and technology strands	* <u>Come dine</u> with me	* <u>Automata</u> <u>toys</u>	* <u>Steady</u> <u>hand game</u>	* <u>Playgrounds</u>	* <u>Navigating</u> the world	Waistcoats
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.	Design	V	V	~	V	V	v
Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer- aided design.	Design	v	v	v	r	v	v
Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately.	Make	V	V	~	~	V	V
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.	Make	v		~	~		v
Investigate and analyse a range of existing products.	Evaluate		V	v	~		v
Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.	Evaluate	V	V	*****	ts that are include	V ad in the conduct	<b>/</b>

Key Stage 2 - National curriculum Design	Kapow Primary's Design	Kapow Primary topics Upper key stage 2 - Year 6							
and technology content	and technology strands	* <u>Come dine</u> with me	* <u>Automata</u> <u>toys</u>	* <u>Steady</u> hand game	* <u>Playgrounds</u>	* <u>Navigating</u> <u>the world</u>	<u>Waistcoats</u>		
Understand how key events and individuals in design and technology have helped shape the world.	Evaluate		~	v					
Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.	Technical knowledge				~				
Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].	Technical knowledge		~						
Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors].	Technical knowledge			v					
Apply their understanding of computing to program, monitor and control their products.	Technical knowledge					~			
Understand and apply principles of a healthy and varied diet.	DME	~							
Prepare and cook variety of predominantly savoury dishes using a range of cooking techniques.	DME	~							
Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.	DME	V		*(	Jnits that are includ	led in the conden	sed curriculum		

National	Kapow Primary topics									
curriculum subjects	* <u>Making a moving story</u> <u>book</u>	* <u>Constructing a windmill</u>	* <u>Puppets</u>	*Option 1: *New* <u>Wheels</u> <u>and axles</u>	*Option 2: <u>Wheels and</u> <u>axles</u>	* <u>Smoothies</u>				
English	<b>Reading</b> - appreciating rhymes such as Humpty Dumpty		<b>Reading</b> - Listening to and answering questions about the main character's appearance in Little Red Riding Hood (or another story of your choice)							
Maths		<b>Geometry</b> - Pupils use their knowledge of shapes to identify circles and find the centre to help them construct a windmill structure.		Geometry - properties of shapes - exploring the properties of shapes that make them appropriate for a wheel. Cutting out different shapes.	Identifying lengths on their design, considering how wheels work					
Science				<b>Everyday materials</b> - exploring the properties of materials they could use to make a pull-along toy.		Thinking scientifically - classifying fruit and vegetables Animals, including humans - learning about the importance of fruit and vegetables in the diet and food hygiene				
Art and design	Drawing the background of their design along with the moving parts									
Computing					Digitally painting a flag for their car (extension activity)					
Geography		Learning about how windmills are used today to generate electricity (wind turbines)								

National	Kapow Primary topics									
curriculum subjects	* <u>Fairground wheel</u>	*Balanced diet	* <u>Making a moving monster</u>	* <u>Baby bear's chair</u>	* <u>Pouches</u>					
English		<b>Reading</b> - reading a letter and summarising the key points		<b>Reading</b> - discussing the events from 'Goldilocks and the three bears'						
Maths	Talking about 3d shapes and naming them correctly		Recording a tally survey	Creating 3D shapes from playdough, Recording totals on a tally chart						
Science	Discussing the properties of materials when choosing materials for their fairground wheel	Discussing the senses that humans have, having an awareness of food hygiene		Interpreting the results of the tip-test						
Art and design			Sketching design ideas		Decorating the pouch using a range of materials					
Computing	Practising drag and drop skills by creating an inspiration board (extension activity)									
Geography				Identifying natural and man-made structures						

			Каром	Primary to	pics		
National curriculum subjects	*Cross-stitch and appliqué <u>Cushions</u> or <u>Egyptian</u> <u>collars</u>	<u>Electric</u> poster	*Option 1: *New* <u>Pneumatic toys</u>	*Option 2: <u>Pneumatic</u> <u>toys</u>	* <u>Wearable</u> <u>technology</u>	* <u>Eating seasonally</u>	* <u>Castles</u>
English					<b>Reading -</b> considering language on sales displays and how it persuades us to buy the product	<b>Reading</b> - following the instructions in a recipe	
Maths	Choosing a 2D shape for their cushion, using knowledge of length to leave correct space for stuffing, seam and running stitch length		Drawing and manipulating 2D shapes, working with nets of 3D shapes (extension activity).		Drawing and manipulating 2D shapes, working with nets of 3D shapes (extension activity)		Identifying and naming 2D and 3D shapes in castle structures, drawing 2D shapes, constructing nets to make 3D shapes
Science		Electricity (Y4) - building a simple circuit and identifying components of a circuit	Forces and magnets - considering how pushes and pulls cause air movement in a pneumatic mechanism.				

#### Cross-curricular links - Year 3 continued...

National			Кароу	v Primary to	pics		
curriculum subjects	*Cross-stitch and appliqué Cushions or Egyptian collars	<u>Electric</u> poster	*Option 1: *New* <u>Pneumatic toys</u>	*Option 2: <u>Pneumatic</u> <u>toys</u>	* <u>Wearable</u> <u>technology</u>	* <u>Eating seasonally</u>	* <u>Castles</u>
Art and design	Designing a theme for their applique shapes (maybe around another topic)		Learning about designers in history; exploring different diagram types and understanding their uses; using drawings to communicate ideas; constructing an aesthetic toy and decorating with embellishments.	Decorating their pneumatic toys with embellishme nts			
Computing					Learning about the history of Computers and how they have developed over time into smart wearables today, writing a programme to enable an LED to flash on a button press, using CAD software to design		Using powerpoint to create their own net (extension activity)
Geography				Discussing how electricity can be made using wind and sea power		Knowing what climate is and that it affects food growth, reading information from a map of the world, knowing the environmental impact of importing food	
History	Learning about Egyptian collars (If you choose the Egyptian collars theme for this unit)	Creating posters that give information about Ancient Rome			Learning about the Digital revolution and the history of computers		Learning about the features of castles and their purpose
RSE/PSHE						Considering food hygiene, knowing that fruit and vegetables give us nutritional benefits	

		Kapow Primary topics						
National curriculum subjects	* <u>Torches</u>	*Option 1: <u>Mechanical</u> <u>cars</u> *Option 2: <u>Making a</u> <u>slingshot car</u>	Mindful moments timer	* <u>Adapting a recipe</u>	* <u>Pavilions</u>	* <u>Fastenings</u>		
English				<b>Spoken language -</b> giving a brief pitch for their biscuit recipe				
Maths		Using nets to create 3D shapes, measuring accurately	Creating a 3D structure using a net	Completing a budget, considering profit margins, using nets to create 3D packages	Building 3D shapes to test the strength of different structures			
Science	<b>Electricity</b> - Identifying electrical products, conductors and insulators, building a simple series circuit with a switch	Forces - understanding the concept of air resistance (Y5) when designing their car						

#### Cross-curricular links - Year 4 continued...

	Kapow Primary topics									
National curriculum subjects	* <u>Torches</u>	*Option 1: <u>Mechanical</u> <u>cars</u> *Option 2: <u>Making a</u> <u>slingshot car</u>	Mindful moments timer	* <u>Adapting a recipe</u>	* <u>Pavilions</u>	* <u>Fastenings</u>				
Art and design		Decorating the panels of the chassis	Decorating their mindful moments timer case		Creating textural effects with materials to clad their structure					
Computing			Programming a micro:bit to function as a timer, debugging code, using software to create logos			Taking photographs of fastenings they find				
Geography		Considering eco-friendly ways of powering cars								
History	Learning about life before electricity	Considering life before the motor car								
RSE/PSHE	Identifying electrical hazards		Sharing ways to be mindful and how this helps us to look after our mental health	Following basic food hygiene						

National			Каро	w Primary topics			
curriculum subjects	*Option 1: <u>Gears and</u> <u>pulleys</u>	*Option 2: <u>Pop-up</u> <u>books</u>	* <u>Doodlers</u>	* <u>Monitoring devices</u>	* <u>Developing a recipe</u>	* <u>Bridges</u>	<u>Stuffed</u> <u>toys</u>
English		Adding captions to their pop-up books to suit the audience	<b>Writing</b> - writing instructions on how to make a Doodler				
Maths						Measuring wood accurately to the nearest mm, draw 45° angles	
Science	Forces - exploring mechanisms, including, pulleys and gears		<b>Electricity</b> -Exploring electrical circuit, identifying and naming components, working investigatively and drawing conclusions	Animals, including humans - finding out about the needs of animals		Using investigative methods to test the strength of a range of bridges, considering properties of materials	
Art and design		Drawing components for their pop-up books			Designing a label for their bolognaise		
Computing				Using search engines to research animals, programming and debugging an animal monitor, using CAD skills to create virtual models	Using search engines to research variations of a recipe		
Geography	Human and physical geography - exploring sustainability and the use of the renewable energy resource, wind.			Considering how we can use the six Rs of sustainability to develop more sustainable habits			
History				Learning about how thermometers have developed, learning about the history behind plastic use			
RSE/PSHE	(apow Primary 2022		National curricu	Considering our shared responsibilities for protecting the environment			mary.com <b>21</b>

National			Kapow Prir	nary topics		
curriculum subjects	* <u>Navigating the world</u>	* <u>Come dine with me</u>	* <u>Playgrounds</u>	<u>Waistcoats</u>	* <u>Steady hand game</u>	* <u>Automata toys</u>
English	<b>Reading</b> - finding key points in a clients letter to create design criteria <b>Spoken language</b> - presenting a pitch about their product					
Maths			Measuring accurately to the nearest mm		Using net templates to create the base of their game	Measuring accurately to the nearest mm
Science	Considering materials and their functional properties	Recognising the impact of diet on our bodies			Drawing circuit diagrams, naming components and their functions	
Art and design			Creating textural effects with materials to clad their structure		Exploring one line drawings	
Computing	Programming a compass (all), pedometer and a light/thermometer (extension), using CAD skills to produce a virtual model				Recapping rules for safe online searching	
Geography	Considering sustainability in design					
History						Learning about Victorian toys
RSE/PSHE		Considering different dishes from other cultures, developing awareness of healthy eating, following basic food hygiene				

## Version history

This page shows recent updates to the document.

Date	Update
26.07.22	Cross curricular links added p.16-p.21
19.08.22	Alternative theme DT: Egyptian collars added.
09.11.22	Updated to include EYFS.
15.12.22	National curriculum objectives amended for Food.
20.03.23	Title changed to 'National curriculum coverage.' Cooking and nutrition removed as a strand - now only a key area.
28.08.23	Year 3 unit 'Wearable technology' replaces Electronic charm.
28.10.23	Updated to reflect refreshed Cooking and nutrition units.
30.04.24	Updated to reflect refreshed 'Constructing a windmill unit.'
21.08.24	Updated to reflect refreshed units published on the website.
02.09.24	Updated links to reflect new unit published.
18.10.24	Updated links to reflect new unit published.
18.12.24	Updated links to reflect newly published units.