

## Perryfields Primary PRU Curriculum Overview

### Design and Technology

Due to us having mixed age classes we operate a two year cycle with our curriculum. This ensures that over time all the pupils get a full entitlement. We use the Kapow scheme of work for our DT curriculum as well as enriching it with work linked to other subjects.

The following key drivers underpin our learning and are developed through the school. Our three key drivers for our school curriculum are:

1. **Aspirations** - we want our pupils to **aspire** to be the best version of themselves. We have incredibly **high expectations** and are passionate about ensuring that every pupil is exposed to a range of possibilities to broaden their **aspirations, build their confidence** and deepen their **knowledge** of the world around them.
2. **Communication** - to help our pupils to develop the knowledge and skills necessary to communicate their thoughts, ideas and feelings successfully across the curriculum through a variety of outlets – this includes through the Arts, Sports and Science, Technology, Engineering and Mechanics (STEM).
3. **Learning Powers** - we aim to develop our pupils' learning habits in order to prepare them for a lifetime of learning. Developing our pupils' learning powers is central to everything we do; it is not an addition to our curriculum but underpins the whole learning process.



## Years 1 and 2: Cycle 1

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic Theme	Food: Fruit and vegetables	Mechanisms: Making a moving story book	Structures: Constructing a windmill	Textiles: Puppets	Mechanisms: Wheels and axles	
Objectives	<p>Name a number of fruits and vegetables I know how to determine if something is a fruit I understand that some foods we call vegetables are actually fruits</p> <p>Remember how to determine if a food is a fruit or a vegetable roots or stem. Vegetables do not contain any seeds. I know that fruits and vegetables grow in one of three places: on trees or vines above the ground below the ground</p> <p>Suggest what fruits and/or</p>	<p>Understand that sliders are mechanisms I know that sliders can make things move I can create moving models that use sliders I can use the words: up, down, left, right, vertical and horizontal to describe movement</p> <p>Design three pages of my moving storybook by: drawing background pictures, drawing the moving parts, deciding whether I will use a side-to-side slider or an up-and-down slider on each page labelling the</p>	<p>Know what a windmill is I can describe the purpose of structures I understand the importance of clear design criteria I understand what a net is</p> <p>Follow instructions to cut and assemble the supporting structure of my windmill I know that that the shape of materials can be changed to improve the strength and stiffness of structures I know that cylinders are a strong type of</p>	<p>Remember that different techniques may be used to join fabrics for different purposes I know how to join fabric by pinning, stapling or glueing</p> <p>Design a puppet I can build my design on a template</p> <p>Join fabrics together I can align two pieces of fabric I know how to use a template</p> <p>To embellish my design using joining methods</p> <p>Evaluate mine and others' work</p>	<p>Identify what mechanism makes a toy or vehicle roll forwards I know that in order for a wheel to move it must be attached to an axle I can draw and label a diagram of an axle, wheel and axle holder</p> <p>Know that a wheel needs an axle in order to move I can fix a design so that the wheel can move I can use appropriate vocabulary to describe which parts are moving or not</p>	

	<p>vegetables are in a drink I can taste fruits and vegetables and describe their: Appearance, feel, smell and taste I can make a choice as to what smoothie I will make and why</p> <p>Know how to prepare fruit and vegetables I can use a knife to cut safely I know how to use a blender I can make a smoothie</p>	<p>movement of each type of slider</p> <p>Make my moving picture by: Drawing my background Drawing and cutting my moving parts Making sliders for my moving parts Putting all my parts together to create my moving picture</p> <p>Review the success of my product by testing it I can evaluate my product against the design criteria I can consider what I have learnt from making my moving story book</p>	<p>structure that are often used for windmills and lighthouses I understand what stable means and can ensure my structure has this property</p> <p>Cut and assemble my turbine correctly I understand that windmill turbines use wind to turn and make the machines inside work I know that axles are used in structures and mechanisms to make parts turn in a circle I can attach my turbine to the axle and attach them to the structure of my windmill I can test that my turbine turns in the structure and alter the parts if it doesn't</p>		<p>Design a moving vehicle I can label my design using appropriate vocabulary</p> <p>Make a wheel and axle mechanism I can evaluate my design to make it even better</p>	
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			<p>Evaluate my windmill according to the design criteria</p> <p>I can test whether my structure is strong and stable and reinforce it if necessary</p> <p>I can test whether my turbine turns in the structure and alter the parts if it doesn't</p> <p>I can test whether my turbine turns freely in the wind/when blown on</p>			
<b>Ongoing Objectives</b>	<p>Understand where food comes from</p> <p>Explore and evaluate a range of existing products</p> <p>Use the basic principles of a healthy and varied diet</p>	<p>Explore and evaluate a range of existing products</p> <p>Evaluate their ideas against design criteria</p>	<p>Build structures, exploring how they can be made stronger, stiffer and more stable</p> <p>Explore and use mechanisms [for example, levers, sliders, wheels and axles] in their products</p>	<p>Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</p> <p>Design purposeful, functional, appealing</p>	<p>Explore and use mechanisms in their product</p>	

	Understand the Design, Make and Evaluate process			<p>products for themselves or other users based on design criteria.</p> <p>Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p> <p>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p>		
<b>Enrichment</b>						
<b>Significant Study</b>						

## Years 1 and 2: Cycle 2

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic Theme	Mechanisms: Fairground wheels	Food: A balanced diet	Mechanisms: Making a moving monster	Structures: Baby bear's chair	Textiles: Pouches	
Objectives	<p>Explore wheel mechanisms and design a wheel</p> <p>Understand the properties of different materials</p> <p>I can communicate my ideas to someone else</p> <p>I can select appropriate materials for my wheel</p> <p>Build a stable structure</p> <p>I can test elements of my design</p> <p>I can adapt my design as necessary</p> <p>I know how to make the wheel rotate</p>	<p>Know what makes a balanced diet</p> <p>Remember what foods fall into what food groups</p> <p>Know how to experience food through touch and smell</p> <p>I can consider and review food combinations</p> <p>I know that the most ideal ingredient combinations for my wrap will contain foods from more than one food group</p> <p>To design a healthy wrap</p>	<p>Understand that mechanisms are a collection of moving parts that work together in a machine</p> <p>I know that there is always an input and output in a mechanism</p> <p>I can identify mechanisms in everyday objects</p> <p>I understand that a lever is something that turns on a pivot</p> <p>I understand that a linkage is a system of levers that are connected by pivots</p> <p>I can help devise whole-class design criteria for what our moving monster should do</p>	<p>Identify natural and man-made structures</p> <p>I understand what is meant by stability and can identify when a structure is more or less stable than another</p> <p>I know that shapes and structures with wide, flat bases or legs are the most stable</p> <p>To explore strength in different structures</p> <p>To understand that the shape of the structure affects its strength</p> <p>To make a structure</p>	<p>Sew a running stitch</p> <p>I can use neat and evenly spaced stitches to join fabric</p> <p>Remember how to use a template</p> <p>I can cut fabric neatly</p> <p>I can pin fabric accurately</p> <p>I can design a pouch</p> <p>To join fabrics using a running stitch</p> <p>Design decorations for my product</p> <p>Join items using fabric glue or stitching</p> <p>I can decorate fabric using different items</p>	

	<p>Evaluate a wheel mechanism and adapt as necessary</p> <p>I know how to ensure that my pod stays upright whilst being rotated around a fixed point</p>	<p>Remember which food combinations work well together</p> <p>I can design three possible wraps based on these combinations</p> <p>I can choose one of these to make as my 'Final Design'</p> <p>I know how to slice food safely using the bridge or claw grip</p> <p>Remember how to prepare food safely</p> <p>I know how to review my design</p>	<p>Know how to make linkages by connecting levers and pivots</p> <p>I know that materials can be selected according to their characteristics</p> <p>I can design and make the features of my monster</p> <p>I can evaluate how functional my monster is and whether it meets the Design Criteria</p> <p>Understand that linkages use levers and pivots to create motion</p> <p>I can think of two of my own points to add to the class Design Criteria</p> <p>I can draw two moving monster designs that meet all points of my Design Criteria</p> <p>My design includes the linkage I will use</p>	<p>according to design criteria</p> <p>Remember that chairs are structures and need to be strong, stiff and stable</p> <p>I know how to create joints and structures from paper/card and tape</p> <p>Produce a finished structure and evaluate its strength, stiffness and stability</p>	<p>I can evaluate my own designs</p>	
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			to make my monster move			
<b>Ongoing Objectives</b>	<p>Evaluate their own ideas and products against a design criteria</p> <p>Build structures exploring how they can be made stronger, stiffer, and more stable</p> <p>Explore and use mechanisms in their products</p> <p>Select from and use a range of tools and equipment to perform practical tasks</p>	<p>Understand where food comes from</p> <p>Use the basic principles of a healthy and varied diet to prepare dishes</p> <p>Explore and evaluate a range of existing products</p> <p>Design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>Evaluate their ideas and products against design criteria</p>	<p>Explore and evaluate a range of existing products</p> <p>Explore and use mechanisms [for example, levers, sliders, wheels and axles] in their products</p> <p>Design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>Generate, develop, model and communicate their ideas through talking and drawing, templates, mock-ups and, where appropriate, information and</p>	<p>Explore and evaluate a range of existing products</p> <p>Evaluate their ideas and products against design criteria</p> <p>Build structures, exploring how they can be made stronger, stiffer and more stable</p> <p>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p>	<p>Select from and use a range of tools and equipment to perform practical tasks</p> <p>Design purposeful, functional, appealing products for themselves and other users</p> <p>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients according to their characteristics</p> <p>Evaluate their ideas and products against design criteria</p>	



			<p>communication technology</p> <p>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p> <p>Evaluate their ideas and products against design criteria</p>			
<b>Enrichment</b>						
<b>Significant Study</b>						

#### Years 3 and 4: Cycle 1

	<b>Autumn 1</b>	<b>Autumn 2</b>	<b>Spring 1</b>	<b>Spring 2</b>	<b>Summer 1</b>	<b>Summer 2</b>
<b>Topic Theme</b>	<b>Textiles: Cushions</b>		<b>Electrical Systems: Electric Poster</b>		<b>Food: Eating Seasonally</b>	
<b>Objectives</b>	To learn how to sew cross-stitch and appliqué reflect on techniques used		To name examples of and understand the purpose of information design.		Know that not all fruits and vegetables can be grown in the UK	

	<p>To design a product and its template cut fabric accurately</p> <p>To follow design criteria and decorate fabric using appliqué and cross stitch</p> <p>To assemble the cushion by: using stitches to join fabrics, leaving space for a seam and understanding why some products are turned inside out after sewing</p>		<p>To describe or explain the importance of information design.</p> <p>To research and select a topic to inform my design ideas</p> <p>To write a paragraph about a chosen topic</p> <p>To sketch initial ideas for an electric poster that meets design criteria</p> <p>To review initial ideas against the design criteria and provide/respond to peer feedback</p> <p>To develop an initial idea into a final design</p> <p>To evaluate against the design criteria</p> <p>To mount the final design</p>		<p>Know that each country has its own climate</p> <p>Understand that these climates enable different fruits and vegetables to grow</p> <p>Consider hygiene when preparing food</p> <p>Use cooking equipment safely</p> <p>Know that imported food will have travelled from far away and has an impact on the environment</p> <p>Know that vegetables and fruit grow in certain seasons and that in the UK we often import food from other countries when it is not in season</p> <p>Know what foods are currently in season</p>	
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			<p>To build a simple circuit that includes a bulb</p> <p>To test and evaluate the electric display board</p> <p>To name and identify simple circuit components (bulb, battery and wires)</p>		<p>Be aware that each fruit and vegetable gives us nutritional benefits</p> <p>Design a filo tart using seasonal vegetables</p> <p>Describe the filo tart and the benefits of its ingredients</p> <p>To safely follow a recipe including preparing a kitchen to cook in</p> <p>Know the basic rules of food contamination</p>	
<b>Ongoing Objectives</b>	<p>Select from and use a range of tools and equipment to perform practical tasks</p> <p>Design purposeful, functional, appealing products for</p>		<p>Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular</p>		<p>Understand and apply the principles of a healthy and varied diet</p> <p>Prepare and cook a variety of predominantly savoury dishes using a range of</p>	

	<p>themselves and other users based on design criteria</p>		<p>individuals or groups</p> <p>Evaluate, investigate and analyse a range of existing products.</p> <p>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</p> <p>Evaluate ideas and products against their own design criteria and consider the views of others to improve their work</p>		<p>cooking techniques</p> <p>Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed</p>	
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			To understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]			
<b>Enrichment</b>						
<b>Significant Study</b>						

#### Years 3 and 4: Cycle 2

	<b>Autumn 1</b>	<b>Autumn 2</b>	<b>Spring 1</b>	<b>Spring 2</b>	<b>Summer 1</b>	<b>Summer 2</b>
<b>Topic Theme</b>	<b>Food: Following a Recipe</b>	<b>Digital World: Electronic Charm</b>	<b>Structures: Constructing a Castle</b>		<b>Mechanical Systems: Pneumatic Toys</b>	
<b>Objectives</b>	<p>Evaluate a product and consider: -taste, smell, texture, appearance, packaging, target audience</p> <p>Follow a recipe to make a biscuit</p> <p>Know how to cook food safely –</p>	<p>Identify some key product developments that occurred as a result of the digital revolution</p> <p>To analyse and evaluate an existing product</p> <p>To problem solve by suggesting potential features on the Micro: bit</p>	<p>To recognise how multiple shapes (2D and 3D) are combined to form a strong and stable structure</p> <p>Know the features of a castle</p> <p>Add design points to the Design Specification to appeal to the</p>		<p>To know that mechanisms are a system of parts that work together to create motion</p> <p>To know that a pneumatic system can be and are used in a range of everyday objects</p> <p>To know that a pneumatic system can force air over</p>	

	<p>following basic hygiene rules</p> <p>Cook to a recipe and adapt it to create a new biscuit prototype</p> <p>Evaluate and compare a range of biscuit prototype</p> <p>Work as a group to design a biscuit within a budget</p> <ul style="list-style-type: none"> <li>-Consider biscuits we have tasted and the successes of the prototypes we have made</li> <li>-Complete a budget to ensure that spend is within the limit</li> <li>-Make decisions as part of a team to finalise the recipe</li> <li>- Create branding for the final product</li> </ul>	<p>and justifying ideas</p> <p>Write a program to control (button press) and/or monitor (sense light) to initiate a flashing LED algorithm.</p> <p>Understand what a loop is in programming</p> <p>Explain the basic functionality of an eCharm program</p> <p>Identify the key features of a technology pouch</p> <p>Develop design ideas for a technology pouch</p> <p>To use a template when cutting and assembling the pouch</p> <p>To design a display badge and/or stand</p>	<p>person/purpose of the castle</p> <p>To draw the design of my castle using 2D shapes, labelling:</p> <ul style="list-style-type: none"> <li>- 3D features</li> <li>- materials</li> <li>- colours</li> </ul> <p>To construct 3D nets</p> <p>Construct the castle to meet the requirements of the brief by:</p> <ul style="list-style-type: none"> <li>-making neat 3D shapes using nets</li> <li>-stacking shapes and recyclable materials to make the structures of my castle</li> <li>-creating a castle base to secure structures to</li> <li>-adorning the castle with facades and other decorative features</li> <li>-evaluate own and other's work</li> </ul>		<p>a distance to create movement</p> <p>To develop design criteria from a design brief to make a pneumatic toy</p> <p>To generate suitable ideas using thumbnail sketches and exploded diagrams</p> <p>To know that there are three different types of pneumatic systems that can be used to design a toy and that recycled household objects can be used to make it</p> <p>To know that different types of drawings are used in design to explain ideas clearly</p> <p>To create a pneumatic system</p>	
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	<p>To make a biscuit that meets a given design brief</p>	<p>using CAD (computer-aided design) software for an eCharm product</p> <p>Draw and manipulate 2D shapes, using computer-aided design, to produce a point of sale badge</p> <p>To understand what is meant by 'point of sale display'</p> <p>Follow a list of design requirements</p>			<p>for a desired motion</p> <p>To build secure housing for a pneumatic system</p> <p>To know that syringes and balloons can be used to create different types of pneumatic systems</p> <p>To know how to use these components to make a functional and appealing pneumatic toy</p> <p>To test and finalise ideas against design criteria</p> <p>Remember that materials are selected due to their functional and aesthetic characteristics</p> <p>To know how to manipulate materials to create different effects by cutting, creasing,</p>	
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					folding, weaving, etc	
<b>Ongoing Objectives</b>	<p>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</p> <p>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</p>	<p>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</p> <p>Understand how key events and individuals in design and technology have helped shape the world</p> <p>Apply their understanding of computing to program, monitor and control their products</p> <p>Use research and develop design criteria to inform the design of</p>	<p>Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</p> <p>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients according to their characteristics</p> <p>Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular</p>		<p>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</p> <p>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</p> <p>Understand and use mechanical systems in their</p>	



	<p>Pupils should be taught to:</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> <li>- Investigate and analyse a range of existing products</li> </ul> <p>Cooking and nutrition</p> <ul style="list-style-type: none"> <li>-Understand and apply the principles of a</li> </ul>	<p>innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups</p> <p>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</p> <p>Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate,</p>	<p>individuals or groups</p> <p>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</p> <p>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures</p>		<p>products, for example, gears, pulleys, cams, levers and linkages</p> <p>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</p> <p>Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</p> <p>Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional</p>	
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	<p>healthy and varied diet</p> <p>Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</p> <p>Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed</p>	<p>information and communication technology</p> <p>Making</p> <p>Select from and use a wider range of tools and equipment</p> <p>Items and objects which are needed to complete a task.</p> <p>to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</p> <p>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals</p>			properties and aesthetic qualities	
<b>Enrichment</b>	British Bake Off Day					

<b>Significant Study</b>		Science electronics project	Walls and barricades Topic			
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## Years 5 and 6: Cycle 1

	<b>Autumn 1</b>	<b>Autumn 2</b>	<b>Spring 1</b>	<b>Spring 2</b>	<b>Summer 1</b>	<b>Summer 2</b>
<b>Topic Theme</b>	<b>Textiles: Puppets/Soft Toys</b>	<b>Structures: Anderson Shelters</b>	<b>Mechanisms: Roman Catapults</b>		<b>Food: What Could Be Healthier?</b>	<b>Mechanical Systems: Toys</b>
<b>Objectives</b>	<p>Designing a puppet considering the main component shapes required and creating an appropriate template.</p> <p>Considering the proportions of the individual components.</p> <p>Creating a 3D puppet from 2D design.</p> <p>Measuring, marking and cutting fabric accurately and independently.</p>	<p>Designing a stable structure that reflects a historical building and its features.</p> <p>Creating a frame structure that is strong and supports the building.</p> <p>Building a wooden Anderson Shelter structure.</p> <p>Independently measuring, marking and sawing wood accurately.</p> <p>To understand some different</p>	<p>Understanding how linkages change the direction of a force.</p> <p>Understanding and drawing cross sectional diagrams to show how a catapult exerts a force, recognizing that these drawings show inner workings.</p> <p>Making things move at a specific time and in a certain way for optimum force.</p>		<p>Adapting and amending traditional recipes and methods to improve the nutritional value.</p> <p>Removing, substituting or adding ingredients to recipes.</p> <p>Follow a recipe step by step.</p> <p>Identifying the nutritional differences between products and recipes.</p> <p>Know that cross contamination is where germs or</p>	<p>To know that an automata is a hand powered mechanical toy.</p> <p>Experimenting with a range of cams, creating a design for an automata toy to create a desired movement.</p> <p>Understand how linkages change the direction of a force.</p> <p>Making things move at the same time.</p> <p>Understand and drawing cross</p>

	<p>To know that blanket stitch reinforces edges or joins pieces of fabric.</p> <p>Creating strong and secure blanket stitches when joining fabric.</p> <p>Threading needles and attaching and joining pieces of fabric.</p> <p>To know that soft toys are made by creating appendages separately and then attaching them together.</p> <p>Applying blanket stitch so that space between the stitches are even and regular.</p> <p>To know that small, neat stitches pulled</p>	<p>ways of supporting a structure.</p> <p>To know that properties are words that describe the form and function of materials and why material selection is important.</p> <p>To adapt and improve the shelter by identifying points of weakness and reinforcing them as necessary.</p>	<p>Measuring, marking and cutting parts accurately to make a stable frame and also provide appropriate flexibility.</p> <p>Understanding for the catapult to function effectively the components must be cut and fixed accurately and securely.</p> <p>Selecting appropriate materials based on the joins and the functions of each part.</p>		<p>bacteria pass onto ready to eat foods and it happens when they mix with raw meat or unclean objects.</p> <p>To know that I can use a nutritional calculator to see how healthy a food option is.</p>	<p>sectional diagrams to show inner workings.</p> <p>Measuring, marking and checking the accuracy of the dowel pieces required.</p> <p>Measuring, marking and cutting components accurately using a ruler and other equipment.</p> <p>To use a bench hook vice and saw safely, appropriately and accurately.</p> <p>To know that a set square can be used to help mark 90 degree angles and a protractor is a tool of measure.</p> <p>Understand that for the frame to function effectively</p>
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	taut are important to make the puppet strong.					<p>the components must be cut accurately and secured at the appropriate angles.</p> <p>Selecting appropriate materials based on the materials being joined.</p> <p>To understand that the toy uses a system of cams, axles and followers.</p> <p>To understand that different shaped cams produce different outputs.</p>
<b>Ongoing Objectives</b>	Testing and evaluating an end product and giving points of further improvement for self and others.	<p>Selecting appropriate tools and equipment for specific tasks.</p> <p>Identifying where the structure requires reinforcement and understanding basic wood</p>	<p>To understand that different sized and shaped catapults will exert different force.</p> <p>To understand and apply using a saw and bench hook vice</p>		<p>Identifying and describing the healthy benefits of food groups.</p> <p>Cutting and preparing vegetables safely.</p> <p>Using all equipment safely</p>	<p>Applying points of improvements.</p> <p>Testing and evaluating an end product and giving points of further improvement for self and others.</p>

		functional properties to problem solve.  Testing and evaluating an end product and giving points of further improvement for self and others.	appropriately and safely.		including knives, pans etc.  Knowing how to avoid cross contamination of foods.	Describing changes they would make if they were to do the project again.
<b>Enrichment</b>	Puppet Show	History Man	History Man		British Bake Off Day	
<b>Significant Study</b>	Researching different types of puppets to identify preferences.	World War Study	Romans Topic		Researching different packaging and how it advertises and reflects a food product.	Britain at Play Topic

### Years 5 and 6: Cycle 2

	<b>Autumn 1</b>	<b>Autumn 2</b>	<b>Spring 1</b>	<b>Spring 2</b>	<b>Summer 1</b>	<b>Summer 2</b>
<b>Topic Theme</b>	<b>Food: Come Dine With Me</b>		<b>Digital World: Monitoring Devices - Burglar Alarms</b>			<b>Electrical Systems: Steady Hand Game</b>
<b>Objectives</b>	Research different recipes and develop a menu with starter, main and dessert.		Researching alarm systems in different building types and developing design criteria from this.			Gathering images and analysing a section of children's toys.  To understand the diagram

	<p>Adapting a recipe based on research.</p> <p>Following a recipe using the correct quantities of each ingredient.</p> <p>To know that flavor is how a food or drink tastes.</p> <p>To know that countries have 'national dishes' which are associated with that country.</p> <p>To understand what happens to certain foods before it appears on the supermarket shelf.</p> <p>To know that processed food has been put through multiple changes in a factory.</p>		<p>Develop and create multiple housing ideas before making a choice.</p> <p>Exploring 3D models of houses on computer.</p> <p>Placing and maneuvering 3D objects within a structure.</p> <p>Developing a programme of work to identify when a circuit is broken and an alarm should sound.</p> <p>Explain key functions within the system design.</p> <p>Explain how the product is useful.</p>			<p>perspectives of top, side view and back.</p> <p>Designing a steady hand game – identifying the components, generating ideas via discussion and/or sketching and drawing a design from three different perspectives.</p> <p>To understand that 'fit for purpose' means that a product works well and is easy to use.</p> <p>To know that 'form over purpose' means a product looks good but does not work very well.</p> <p>To know the importance of 'form follows function' so the product is</p>
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						<p>designed with the function being of the highest importance.</p> <p>Modelling ideas through prototypes.</p> <p>Construct a stable base for the game by accurately assembling a net, incorporating a circuit and decorating to a high quality finish.</p>
<b>Ongoing Objectives</b>	<p>Working safely, hygienically and independently.</p> <p>To know it is important to wash fruit and vegetables to remove dirt and insecticides.</p> <p>Working to a given timescale.</p> <p>Evaluating health and safety to</p>		<p>Understanding the functions of plastics and wiring materials and the outlook on the earth's future regarding these.</p> <p>To know the 6 Rs of sustainability.</p> <p>To know that a device is equipment created for a</p>			<p>Suggesting points of improvement for self and others.</p>



	<p>minimize cross contamination.</p> <p>Evaluating a recipe, considering taste, smell and texture.</p> <p>Taste testing and scoring final products.</p> <p>Suggesting points of improvement for self and others.</p>		<p>certain purpose to monitor and detect changes.</p>			
<b>Enrichment</b>	Come Dine With Me Days					
<b>Significant Study</b>			Science electronics project			Science electronics project