

Year 5 / 6 Chestnut	3.7 CAMS	3.8 FOOD THROUGHOUT THE YEAR	3.3. ELECTRONIC MOTORS
Breadth	<p>Design and make an automaton toy</p> <p>Explore how CAMS turns rotary motion into linear motion</p>	<p>To create a 2 course menu of seasonal global food</p> <p>To explore global and seasonal food, ready to be harvested in particular seasons in different countries considering nutrient, economic value and impact environmentally</p> <p>To design and make a 2 course meal to celebrate Chinese new year - spring rolls and vegetable noodles</p>	<p>To make a motorised car</p> <p>Explore rotary movement in electronic motors. Explore how when motors are combined with gears they will adjust speed</p>
Threshold Concepts	<p>Master practical skills - Measuring Cutting Estimating Assembling Joining</p> <p>Design, make, evaluate, improve</p> <p>Take inspiration from design – An automaton toy</p>	<p>Master Practical Skills - Peeling, chopping, snipping, stirring, measuring, frying, simmering, cracking eggs, shredding</p> <p>Design, make, evaluate, improve.</p> <p>Take inspiration from design – pre- made spring rolls, noodle dishes</p>	<p>Master practical skills - Measuring Estimating Cutting Joining Using electronic circuits</p> <p>Design, make, evaluate, improve.</p> <p>Take inspiration from design – A motorised car</p>
Milestones	<p>Cut materials with precision and refine the finish with appropriate tools (such as sanding wood after cutting or a more precise scissor cut after roughly cutting out a shape). Show an understanding of the qualities of materials to choose appropriate tools to cut and shape (such as the nature of fabric may require sharper scissors than would be used to cut paper).</p>	<p>Prepare ingredients hygienically using appropriate utensils.</p> <ul style="list-style-type: none"> • Measure ingredients to the nearest gram accurately. • Follow a recipe. • Assemble or cook ingredients (controlling the temperature of the oven or hob, if cooking). • Understand the importance of correct storage and handling of ingredients (using knowledge of micro-organisms). • Measure accurately and calculate ratios of ingredients to scale up or down from a recipe. 	<p>Convert rotary motion to linear</p> <p>Develop a range of practical skills to create products (such as cutting, drilling and screwing, nailing, gluing, filing and sanding).</p> <p>Design with the user in mind, motivated by the service a product will offer (rather than simply for profit).</p>

	<p>Convert rotary motion to linear using cams.</p> <p>Design with the user in mind, motivated by the service a product will offer (rather than simply for profit).</p> <p>Make products through stages of prototypes, making continual refinements.</p> <p>Ensure products have a high quality finish, using art skills where appropriate.</p> <p>Use prototypes, cross-sectional diagrams and computer aided designs to represent designs.</p> <p>Create innovative designs that improve upon existing products.</p> <p>Evaluate the design of products so as to suggest improvements to the user experience.</p>	<ul style="list-style-type: none"> • Demonstrate a range of baking and cooking techniques. • Create and refine recipes, including ingredients, methods, cooking times and temperatures. 	<p>Make products through stages of prototypes, making continual refinements.</p> <p>Create innovative designs that improve upon existing products.</p> <p>Evaluate the design of products so as to suggest improvements to the user experience.</p>
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