

Year 5 Spring

<p>Design NC LOs</p>	<p>Design:</p> <ul style="list-style-type: none"> • 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 • generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design <p>Make:</p> <ul style="list-style-type: none"> • select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining, and finishing], accurately • 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 <p>Evaluate:</p> <ul style="list-style-type: none"> • investigate and analyse a range of existing products • evaluate their ideas and products against their own design criteria and consider the views of others to improve their work • understand how key events and individuals in design and technology have helped shape the world <p>Technical knowledge:</p> <ul style="list-style-type: none"> • apply their understanding of how to strengthen, stiffen and reinforce more complex structures • understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] • understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] • apply their understanding of computing to program, monitor and control their products. <p>Cooking and Nutrition</p> <ul style="list-style-type: none"> • understand and apply the principles of a healthy and varied diet • prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques • understand seasonality, and know where and how a variety of ingredients are grown, 		
<p>Topic</p>	<p>The Tudors</p>	<p>Knowledge organiser</p>	<p>3.3 Electronic Motors</p>
<p>Concepts</p>	<p>Practical Knowledge, Technical Knowledge, Design Inspiration, Design Process</p>	<p>Resources</p>	<p>rubber bands, battery packs, cable ties, motors, tape, wood, card</p>
<p>Vocabulary</p>	<p>Rotatory, propeller, combined, circuit, switch, chassis</p>		
<p>Unit Development</p>	<p>Lesson 1: Electronic Motors: Design Inspiration (pg. 338 & 342) LO: To develop technical knowledge. LO: To understand the key feature of an electric motor.</p> <p>Lesson 2: Electronic Motors Guided Design (pg. 343-345) LO: To develop and communicate ideas by talking and drawing.</p>		

	Lesson 3: Electronic Motors Guided Design (pg. 348) LO: To make an electrical motor prototype.
	Lesson 4: Electronic Motors Guided Design (pg. 349-350) LO: To evaluate their products against their design and consider improvements.