

Year 5 Autumn

<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,
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Topic	Early Islamic Civilisation	Knowledge organiser	3.4 Arch Structures
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Concepts	Design Inspiration, Design Process	Resources	paper, card, glue, ruler, scissors
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Vocabulary	perfected, ellipse, parabola, fluency, purpose, user		
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Unit Development	Lesson 1: Arch Structure (pg.354, 355) LO: To develop technical knowledge. LO: To investigate how structures are formed using everyday materials.		
	Lesson 2: Design Inspiration (pg. 359-358) LO: To develop and communicate ideas through discussions, annotations, and diagrams		
	Lesson 3: Guided Design (pg. 362-363) LO: To develop and communicate ideas through discussions, annotations, and diagram LO: To select appropriate materials, joining and measuring techniques to make an arch structure.		

Lesson 4- Guided Design (pg. 364) LO: To select appropriate materials, joining and measuring techniques to make an arch structure. LO: To evaluate their products against their design and consider improvements.