

Pudsey Bolton Royd Primary School Design & Technology Long-Term Plan

Year 4

<u>Autumn 1</u>	<u>Autumn 2</u>	<u>Spring 1</u>
Enquiry Questions		
Can I use a sewing needle?	Can I use a “bridge” hold? Can I use tools to peel, grate and mash?	Can I create a functional Shaduf
Outcomes		
Evaluate current Roman tunic designs. Design their own Roman tunic as a sketch/diagram. Make their Roman tunic using chosen materials. Evaluate each others products against their design.	Design a healthy meal Make Butternut squash and red pepper soup Evaluate my meal	Evaluate Egyptian shadufs functionality Design a functional shaduf Make a functional shaduf Evaluate their product against their design
Linked Texts		
Linked Experiences		
Overview		
To begin the project, children will research fashion designers, who have made the biggest impact. Children will evaluate the roman tunic and identify how it was designed and made. They will use this to create their own design of a roman tunic and use modern ways to make a Roman tunic. Children will go onto create and use pattern-pieces to cut material furthermore, use a sewing needle to attach the material together. They will evaluate one anothers products against the original design and suggest improvements that could be made. they will discuss whether the modern method would have made life easier for a Roman tunic maker.	Children will discuss what a healthy balanced diet should include and share different flavours of soup. They will have opportunities to practice the “bridge hold to cut Butternut squash and peppers. They will use peelers on carrots and then grate them as an added ingredient to their soup. Children will use a fork to mash the butternut squash before blending all the ingredients together. Children will be supervised while they take turns cooking the soup on the hob. At the end of the session, children will taste their meal and evaluate it’s healthiness and how it would fit in a balanced diet.	Children will begin this project by researching Archimedes and his development of levers and pulleys. They will also evaluate how a shaduf functions through this mechanism thinking about how it could be improved. They will use this evaluation to design their own functional shaduf. Children will have the opportunity to use cutting and joining equipment in the making of their product. Once it is complete, they will go on to assess each other's product against their original design.
Knowledge and/or Skills Covered		
Explain their plans for design in some detail, and in writing, making reference to techniques and materials/ ingredients. Draw a plan or sketch from a description. Draw simple diagrams without much guidance. Start to suggest how their peers can improve their work. Desire to alter and/or restart designs. Use a Sewing needle. Make reasonable estimations of length. Verbalise others’ opinions politely and consider following their advice. Start suggesting improvements to others’ designs.	Use a ‘bridge’ hold to cut harder veg (e.g. <i>butternut squash</i>) Use peeler on vegetables Use a grater for e.g. carrot Mash butternut squash (<i>roughly</i>); Cook food on the hob (<i>supervised</i>)	Explain their plans for design in some detail, and in writing, making reference to techniques and materials. Use research to justify the appeal of their product, and the innovativeness of their design. Draw a plan or sketch from a description Draw simple diagrams without much guidance Create a scale-bar Clear projections of common 3D shapes Precision level: careful with wrist position to avoid smudging (<i>awareness of rubbings detritus under the page that might affect lines / measurements</i>)

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		<p>Start to suggest how their peers can improve their work Desire to alter and/or restart designs. Request materials or ingredients that have not been supplied. Use: Compass; Scissors (to score); adult scissors (to cut), glue gun (all supervised). Make reasonable estimations of length and distance. Verbalise others' opinions politely and consider following their advice. Start suggesting improvements to others' designs Link products to their cultural contexts.</p>
National Curriculum Attainment Targets		
<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. Generate, develop, model and communicate their ideas through discussion, annotated sketches, pattern pieces. Select from and use a wider range of materials and components, textiles, according to their functional properties and aesthetic qualities Investigate and analyse a range of existing products. Evaluate their ideas and products 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>	<p>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, reared, caught and processed.</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 Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional. 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 according to their functional properties and aesthetic qualities. 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. Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</p>
Important Vocabulary		
<p>Pattern piece, Structure, Unique, Characteristic, Convention, Aesthetic.</p>	<p>"Bridge" hold, Vegetables, Balanced, Diet, Healthy, Peeler, Grater, Mash, Blend, Cook, Hob</p>	<p>Uncertain, Former, Latter, Cause, Consequence, Continuity, Medium, Intricate, Impact, Develop, Structure, Unique, Convention, Aesthetic, Make use of Mathematical language in describing shape and</p>

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		location (e.g. <i>3D shape vocab incl angle, convex etc</i>), Increase, Decrease
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<i>Spring 2</i>	<i>Summer 1</i>	<i>Summer 2</i>
	Enquiry Questions	
	Outcomes	
	Linked Texts	
	Linked Experiences	
	Overview	
	Knowledge and/or Skills Covered	
	National Curriculum Attainment Targets	
	Important Vocabulary	