



Beech Hill Community Primary School Design Technology Curriculum overview (KS1 & 2)



<p>Note that because there are mixed year groups through school, topics are taught on a cyclical basis so that children in mixed year classes are all studying topics together</p>				
KS1	Year A	<p>Modelling and communicating ideas:</p> <p>Based on known techniques design and make a product in context, modelling ideas using construction kits and templates</p>	<p>Understanding concepts/ Technical knowledge:</p> <p>Using context for learning design and strengthen freestanding structures, choosing appropriate tools and materials.</p>	<p>Cooking and nutrition:</p> <p>Identify food groups, cut and shape ingredients without a heat source</p>
	Year B	<p>Making products work: know that a 3D textile product can be assembled from 2 identical fabric shapes. Design and make for a purpose</p> <p>(Puppets / Teddy Bears: Link with Toys)</p>	<p>Modelling and communicating ideas:</p> <p>Based on known techniques design and make a product in context, modelling ideas using ICT (eg design a game for a bee bot/ app for ipad - link to position and direction Geography/ maths)</p>	<p>Understanding concepts/ Technical knowledge: Explore existing products that use simple mechanisms- levels, sliders, wheels and axles. Use design criteria to use mechanisms in own design.</p>
Vocabulary		<p>Design., make, product, purpose, fix, join, assemble, adapt, evaluate, improve, mechanisms, textiles, fabric, structure, ingredients</p>		



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LKS2	Year A	<p>Making products work: explore a range of materials. Know how to make strong stiff shell structures (shelters, domes, roofs) using appropriate tools and equipment for cutting and shaping. <i>Key individual suggestion: Zaha Hadid</i></p>	<p>Modelling and communicating ideas: Using exploding diagrams to communicate ideas. Design and make a prototype for a product in context using know skills taking into account the needs of the user</p>	<p>Understanding concepts/ Technical knowledge: Explore existing products that use mechanisms – levers, linkages or pneumatic systems. Use knowledge to design product. <i>Key individual suggestion: John Boyd Dunlop</i></p>
	Year B	<p>Cooking and nutrition: Know where food comes from. Use a range of techniques including chopping peeling and slicing to produce savoury dishes with the use of a heat source if needed. Consider where/ how foods are sourced <i>Key individual suggestion: Delia Smith</i></p>	<p>Understanding concepts/ Technical knowledge: Know that simple electrical circuits can be used to create functional products. Disassemble products to use as template for own design. <i>Key individual suggestion: David Misell</i></p>	<p>Modelling and communicating ideas: Using computer aided design to communicate ideas. Design and make a prototype for a product in context using know skills taking into account the needs of the user</p>
Vocabulary		<p>Concept, Design, Disassemble, Make, Test, Evaluate, Aesthetics, Purpose, Fix, Communicate, Prototype, Context, Exploding diagram, Levers, Linkages, Nutrition, Techniques, Strengthen, stiffen , Shell structure, Computer aided design (CAD) , vocabulary related to electricity (science)</p>		



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UKS2	Year A	<p>Cooking and nutrition: Understand the seasonality / sustainability of food. Design a savoury menu. Use a range of techniques to produce savoury dishes with the use of a heat source. <i>Key individual suggestion: Jamie Oliver</i></p>	<p>Understanding concepts/ Technical knowledge: Explore how cams, gears and pulleys are used to create movement. Identify need. Consider how a computer could be used to control their product. <i>Key individual suggestion: Archimedes (link to Greeks)</i></p>	<p>Modelling and communicating ideas: Using annotated sketches and cross sectional drawings design and make a product taking into account constraints of time, materials and cost</p>
	Year B	<p>Modelling and communicating ideas: Using computer aided design generate innovative ideas in context based on research of a product, drawing on existing techniques</p>	<p>Understanding concepts/ Technical knowledge: Explore existing products that use complex electrical circuits to make them function and use in own contextual design. Consider historical developments. Key individual suggestion: <i>Beulah Louise Henry (1887-1973) Nikola Tesla</i></p>	<p>Making products work: Know how to reinforce and strengthen a 3D textile product to make it fit for purpose. <i>Key individual suggestion: Isatou Seesay</i></p>
Vocabulary		<p>Concept, Design, Disassemble, Make, Test, Evaluate, Aesthetics, Purpose, Fix, Communicate, Prototype, Context, Exploding diagram, cams gears and pulleys, Nutrition, Techniques, Strengthen, stiffen , innovation, 3 dimensional structure, Computer aided design (CAD) , vocabulary related to electricity (science), cost constraints, seasonality, sustainability</p>		