

Design and Technology Learning – King Charles C of E Primary School - SHINE curriculum

Key Concept	Progression in Disciplinary Learning			
Master practical skills	EYFS	Autumn -Scissor skills and cutting skills -Modelling with recycled materials - following instructions for a recipe (CLL) The Gingerbread men/ The Littler Red Hen -Construction areas indoor and outdoor	Spring Folding, twisting scrunching skills -Attaching skills -Modelling with clay -Large construction -Constructing and drawing designs -Use of Bee Bots (Continue copy and repeat a patten Maths) -remote-control cars	Summer Create a design of a 3d model. -Make design using techniques learnt experimenting with colour design and texture -Share creation and reflect on process they used
	Development matters	-Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. - Following instruction (CLL)	-Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. -Make use of props and materials when role playing characters	-Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. -Share their creations, explaining the process they have used. -Make use of props and materials when role playing characters

<p>Y1</p>	<p>Big Question: How do we keep people safe at sea? Food</p> <ul style="list-style-type: none"> • Cut, peel or grate ingredients safely and hygienically. • Measure or weigh using measuring cups or electronic scales. • Assemble or cook ingredients. <p>Big Question: How are animals grouped? Materials</p> <ul style="list-style-type: none"> • Cut materials safely using tools provided. • Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling). • Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen). <p>Children to cut felt using scissors and join features using glue.</p> <p>Big Question: Why do we still remember the great fire of London? Materials</p> <ul style="list-style-type: none"> • Cut materials safely using tools provided. • Measure and mark out to the nearest centimetre. • Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling). • Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen). <p>Chn to design and create a Tudor house/ baker/ St Pauls Cathedral.</p>	<p>Construction</p> <ul style="list-style-type: none"> • Use materials to practise drilling, screwing, gluing and nailing materials to make and strengthen products. <p>Chn will explore the different joining methods and choose their preferred method to construct a timber frame.</p> <p>Big Question: How have toys changed over time? Materials</p> <ul style="list-style-type: none"> • Cut materials safely using tools provided. • Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling). • Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen). <p>Children to cut felt using scissors and join features using glue.</p> <p>Mechanics</p> <ul style="list-style-type: none"> • Create products using levers, wheels and winding mechanisms. <p>Chn to make an automaton. Frame will be pre cut for children to construct and join. Chn will choose, draw and cut out their chosen cams and will join all materials together with support.</p>
<p>Y2</p>	<p>Big Question: What do we need to survive? Food</p> <ul style="list-style-type: none"> • Cut, peel or grate ingredients safely and hygienically. • Measure or weigh using measuring cups or electronic scales. • Assemble or cook ingredients. <p>Textile-</p> <ul style="list-style-type: none"> • Colour and decorate textiles using a number of techniques (such as dyeing, adding sequins or printing). <p>Big Question: Why does Falmouth have a castle? Textiles</p> <ul style="list-style-type: none"> • Use weaving to create a pattern. 	

Y3

Big Question 'How does the river Fal influence the lives of Falmouth people?'

Cut materials accurately and safely by selecting appropriate tools.

Measure and mark out to the nearest millimetre.

Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs).

- Decide which equipment to use for measuring, cutting and joining to create a moveable boat.
- Select appropriate joining techniques and measure accurately.

Big Question 'Why was the Roman Empire so successful?'

Prepare ingredients hygienically using appropriate utensils.

Measure ingredients to the nearest gram accurately.

Follow a recipe.

Assemble or cook ingredients (controlling the temperature of the oven or hob, if cooking).

- Make flatbreads for a Roman banquet

Y4

Big Question

Why do people move?

Prepare ingredients hygienically using appropriate utensils.

Follow a recipe.

Understand the need for a seam allowance.

Join textiles with appropriate stitching.

- Making a Viking Stew
- Sewing a Viking coin pouch

Big Question

How are Christmas decorations made?

Understand the need for a seam allowance.

Join textiles with appropriate stitching.

Select the most appropriate techniques to decorate textiles

- Design and create a Christmas decoration meeting the specification.

Big Question

Why do the Tudors have a terrible reputation?

Prepare ingredients hygienically using appropriate utensils.

Measure ingredients to the nearest gram accurately.

Follow a recipe.

Assemble or cook ingredients (controlling the temperature of the oven or hob, if cooking).

- Create and cook a menu for a rich and poor Tudor family.

Y5	<p>Big Question Who were the Ancient Greeks? Create objects (such as a cushion) that employ a seam allowance. Join textiles with a combination of stitching techniques (such as back stitch for seams and running stitch to attach decoration). Use the qualities of materials to create suitable visual and tactile effects in the decoration of textiles (such as a soft decoration for comfort on a cushion).</p> <p>Big Question What was it like to live in a Mayan Civilisation? 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> <ul style="list-style-type: none"> • Design and create a Mayan mask <p>Big Question What was it like to be healthy and sustainable? Measure accurately and calculate ratios of ingredients to scale up or down from a recipe. Demonstrate a range of baking and cooking techniques. Create and refine recipes, including ingredients, methods, cooking times and temperatures.</p> <ul style="list-style-type: none"> • Create Italian dough <p>Big Question How has mining impacted Cornish culture? Select appropriate joining techniques.</p> <ul style="list-style-type: none"> • Create a CAMS structure to move a miner
Y6	<p>Big Question What were the key events in Victorian History that influenced change? (Linked to Schools across the Ocean and Kensukes Kingdom)</p> <ul style="list-style-type: none"> • 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. Demonstrate a range of baking and cooking techniques. • Create and refine recipes, including ingredients, methods, cooking times and temperatures. • Ensure products have a high quality finish, using art skills where appropriate.

Design, make, evaluate and improve	Y1	
	Y2	<p>Big Question: What would you choose; home or away?</p> <p>Design, make, evaluate and improve</p> <ul style="list-style-type: none"> • Design products that have a clear purpose and an intended user. • Make products, refining the design as work progresses.
	Y3	<p>Big Question 'How does the river Fal influence the lives of Falmouth people?'</p> <p>Choose suitable techniques to construct products or to repair items.</p> <p>Strengthen materials using suitable techniques.</p> <ul style="list-style-type: none"> • Decide which equipment to use for measuring, cutting and joining to create a moveable boat. • Select appropriate joining techniques and measure accurately.
	Y4	<p>Big Question</p> <p>What makes the Amazon Amazing?</p> <p>Strengthen materials using suitable techniques.</p> <ul style="list-style-type: none"> • Hardening string and other materials to create a stamp for block printing.

Take inspiration from design throughout history	Y5	<p>Big Question Who were the Ancient Greeks</p> <ul style="list-style-type: none"> • Create a Greek emblem for a Greek God <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>Big Question What was it like to live in a Mayan Civilisation?</p> <p>Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs). Select appropriate joining techniques.</p> <ul style="list-style-type: none"> • Create a Mayan mask <p>Big Question How has mining impacted Cornish culture?</p> <p>Show an understanding of the qualities of materials to choose appropriate tools to cut and shape Select appropriate joining techniques.</p> <ul style="list-style-type: none"> • Create a moving miner with a CAMs mechanism
	Y6	<p>Big Question What were the key events in Victorian history that influenced change?</p> <p><i>Make products through stages of prototypes, making continual refinements. (Through tasting)</i></p>
	Y1	<p>Big Question: Why do we still remember the great fire of London?</p> <ul style="list-style-type: none"> • Explore objects and designs to identify likes and dislikes of the designs. • Suggest improvements to existing designs. <p>Chn will explore a range of architecture found in London in 1666 and in the present time.</p> <p>Big Question: How have toys changed over time?</p> <ul style="list-style-type: none"> • Explore objects and designs to identify likes and dislikes of the designs. <p>Chn will explore a range of automatons created during different eras in history by different designers.</p>
	Y2	<p>Big Question: What would you choose; home or away?</p> <p>Take inspiration from design throughout</p> <ul style="list-style-type: none"> • Explore objects and designs to identify likes and dislikes of the designs. • Suggest improvements to existing designs. • Explore how products have been created.

Y3	<p>Big Question</p>
Y4	<p>Big Question What makes the Amazon Amazing? Identify some of the great designers in all of the areas of study (including pioneers in horticultural techniques) to generate ideas for designs</p> <ul style="list-style-type: none"> • Orla Kiely – creating stamps to make wrapping paper in the style of.
Y5	<p>Big Question Who were the Ancient Greeks? Make products through stages of prototypes, making continual refinements.</p> <ul style="list-style-type: none"> • Design a Greek Eblem for a Greek God <p>Big Question What was it like to be healthy and sustainable? Combine elements of design from a range of inspirational designers throughout history, giving reasons for choices. Create innovative designs that improve upon existing products. Evaluate the design of products so as to suggest improvements to the user experience.</p> <ul style="list-style-type: none"> • Create Italian dough inspired by Gino <p>Big Question How has mining impacted Cornish culture? Make products through stages of prototypes, making continual refinements. Create innovative designs that improve upon existing products. Evaluate the design of products so as to suggest improvements to the user experience.</p> <ul style="list-style-type: none"> • Create a moving mining structure
Y6	<p>Big Question</p>