



# Singleton Church of England Primary School

## Progression of Skills and Knowledge

### DT - Y6



	Year 6 –Cooking & Nutrition Come dine with me	Year 6 – Mechanisms/Mechanical Systems Automata Toys	Year 6 – Structures Playgrounds	Year 4-Textiles Waist coats
<b>Previous unit and next unit</b>	<b>EYFS – Soup</b> <b>Y1 –Fruit &amp; Vegetables</b> <b>Y2- A balanced diet</b> <b>Y3 – Eating Seasonally</b> <b>Y4- Adapting a recipe</b> <b>Y5 What could be healthier</b>	<b>No EYFS</b> <b>Y1-Making a moving story book</b> <b>Y1 - Wheels and axles</b> <b>Y2- Fairground Wheel</b> <b>Y2- Making a moving monster</b> <b>Y3- Pneumatic Toys</b> <b>Y4 Making a sling shot</b> <b>Y5– Pop up book</b>	<b>EYFS- Boats</b> <b>Y1 – Constructing a windmill</b> <b>Y2- Baby bears chair</b> <b>Y3- Constructing a castle</b> <b>Y4 – Pavilions</b> <b>Y5- Bridges</b>	<b>EYFS – Bookmarks</b> <b>Y1- Puppets</b> <b>Y2 – Pouches</b> <b>Y3 – Cross stitch &amp; applique</b> <b>Y4- Fastenings</b> <b>Y5 Stuffed toys</b>
<b>KEY VOCABULARY</b>	Accompaniment • Collaboration • Cookbook • Cross-contamination • Equipment • Farm • Flavour • Illustration • Imperative-verb • Ingredients • Method • Nationality • Preparation • Processed • Reared • Recipe • Research • Storyboard • Target audience • Top tips & units of measure		Adapt • Apparatus • Bench hook • Cladding • Coping saw • Design • Dowel • Evaluation • Feedback • Idea • Jelutong • Landscape • Mark out • Measure • Modify • Natural materials • Plan view • Playground • Prototype • Reinforce • Sketch • Strong • Structure • Tenon saw • Texture • User • Vice • Weak	Accurate • Adapt • Annotate • Design • Design criteria • Detail • Fabric • Fastening • Knot • Properties • Running-stitch • Seam • Sew • Shape • Target audience • Target customer • Template • Thread • Unique • Waistcoat & waterproof
<b>SUBSTANTIVE KNOWLEDGE</b>	<b>Knowledge - Come dine with me</b> <ul style="list-style-type: none"> <li>To know that 'flavour' is how a food or drink tastes.</li> <li>To know that many countries have 'national dishes' which are recipes associated with that country.</li> <li>To know that 'processed food' means food that has been put through multiple changes in a factory.</li> <li>To understand that it is important to wash fruit and vegetables before eating to remove any dirt and insecticides.</li> <li>To understand what happens to a certain food before it appears on the supermarket shelf (Farm to Fork).</li> </ul>	<b>Knowledge - Automata Toys</b> <b>Technical</b> <ul style="list-style-type: none"> <li>To understand that the mechanism in an automata uses a system of cams, axles and followers.</li> <li>To understand that different shaped cams produce different outputs</li> </ul> <b>Additional Knowledge</b> <ul style="list-style-type: none"> <li>To know that an automata is a hand powered mechanical toy.</li> <li>To know that a cross-sectional diagram shows the inner workings of a product.</li> <li>To understand how to use a bench hook and saw safely.</li> <li>To know that a set square can be used to help mark 90° angles.</li> </ul>	<b>Knowledge – Playgrounds</b> <b>Technical</b> <ul style="list-style-type: none"> <li>To know that structures can be strengthened by manipulating materials and shapes.</li> </ul> <b>Additional Knowledge</b> <ul style="list-style-type: none"> <li>To understand what a 'footprint plan' is.</li> <li>To understand that in the real world, design, can impact users in positive and negative ways.</li> <li>To know that a prototype is a cheap model to test a design idea.</li> </ul>	<b>Knowledge – Waistcoats</b> <ul style="list-style-type: none"> <li>To understand that it is important to design clothing with the client/ target customer in mind.</li> <li>To know that using a template (or clothing pattern) helps to accurately mark out a design on fabric.</li> <li>To understand the importance of consistently sized stitches.</li> </ul>
<b>MAKING CONNECTIONS</b> <b>Key knowledge / key questions</b>	<b>Recall-Y5- What could be Healthier</b> <b>Knowledge - What could be healthier?</b> <ul style="list-style-type: none"> <li>To understand where meat comes from - learning that beef is from cattle and how beef is reared and processed, including key welfare issues.</li> <li>To know that I can adapt a recipe to make it healthier by substituting ingredients.</li> <li>To know that I can use a nutritional calculator to see how healthy a food option is.</li> <li>To understand that 'cross-contamination' means bacteria and germs have been passed onto ready-to-eat foods and it happens when these foods mix with raw meat or unclean objects.</li> </ul> <p>Last unit Y6 no Y7</p>	<b>Recall – Y5 Pop-up book</b> <b>Knowledge – Pop Up Book</b> <b>Technical</b> <ul style="list-style-type: none"> <li>To know that mechanisms control movement.</li> <li>To understand that mechanisms can be used to change one kind of motion into another.</li> <li>To understand how to use sliders, pivots and folds to create paper-based mechanisms.</li> </ul> <b>Additional Knowledge</b> <ul style="list-style-type: none"> <li>To know that a design brief is a description of what I am going to design and make.</li> <li>To know that designers often want to hide mechanisms to make a product more aesthetically pleasing.</li> </ul>	<b>Recall- yr 5 Bridges</b> <b>Knowledge – Bridges</b> <b>Technical</b> <ul style="list-style-type: none"> <li>To understand some different ways to reinforce structures.</li> <li>To understand how triangles can be used to reinforce bridges.</li> <li>To know that properties are words that describe the form and function of materials.</li> <li>To understand why material selection is important based on properties.</li> <li>To understand the material (functional and aesthetic) properties of wood.</li> </ul> <b>Additional Knowledge</b> <ul style="list-style-type: none"> <li>To understand the difference between arch, beam, truss and suspension bridges.</li> <li>To understand how to carry and use a saw safely.</li> </ul>	<b>Recall yr5</b> <b>Knowledge – Stuffed Toys</b> <ul style="list-style-type: none"> <li>To know that blanket stitch is useful to reinforce the edges of a fabric material or join two pieces of fabric.</li> <li>To understand that it is easier to finish simpler designs to a high standard.</li> <li>To know that soft toys are often made by creating appendages separately and then attaching them to the main body.</li> <li>To know that small, neat stitches which are pulled taut are important to ensure that the soft toy is strong and holds the stuffing securely</li> </ul>
<b>Key Skills</b>	<b>Design:</b> <ul style="list-style-type: none"> <li>Writing a recipe, explaining the key steps, method and ingredients.</li> <li>Including facts and drawings from research undertaken.</li> </ul> <b>Make:</b> <ul style="list-style-type: none"> <li>Following a recipe, including using the correct quantities of each ingredient.</li> <li>Adapting a recipe based on research.</li> <li>Working to a given timescale.</li> <li>Working safely and hygienically with independence.</li> </ul> <b>Evaluate:</b> <ul style="list-style-type: none"> <li>Evaluating a recipe, considering: taste, smell, texture and origin of the food group.</li> </ul>	<b>Design:</b> <ul style="list-style-type: none"> <li>Experimenting with a range of cams, creating a design for an automata toy based on a choice of cam to create a desired movement.</li> <li>Understanding how linkages change the direction of a force.</li> <li>Making things move at the same time.</li> <li>Understanding and drawing cross-sectional diagrams to show the inner-workings of my design.</li> </ul> <b>Make:</b> <ul style="list-style-type: none"> <li>Measuring, marking and checking the accuracy of the jelutong and dowel pieces required.</li> <li>Measuring, marking and cutting components accurately using a ruler and scissors.</li> </ul>	<b>Design:</b> <ul style="list-style-type: none"> <li>Designing a playground featuring a variety of different structures, giving careful consideration to how the structures will be used, considering effective and ineffective designs.</li> </ul> <b>Make</b> <ul style="list-style-type: none"> <li>Building a range of play apparatus structures drawing upon new and prior knowledge of structures.</li> <li>Measuring, marking and cutting wood to create a range of structures.</li> <li>Using a range of materials to reinforce and add decoration to structures.</li> </ul> <b>Evaluate:</b> <ul style="list-style-type: none"> <li>Improving a design plan based on peer evaluation.</li> </ul>	<b>Design:</b> <ul style="list-style-type: none"> <li>Designing a waistcoat in accordance to a specification linked to set of design criteria.</li> </ul> <ul style="list-style-type: none"> <li>Annotating designs, to explain their decisions.</li> </ul> <b>Make:</b> <ul style="list-style-type: none"> <li>Using a template when cutting fabric to ensure they achieve the correct shape.</li> <li>Using pins effectively to secure a template to fabric without creases or bulges.</li> <li>Marking and cutting fabric accurately, in accordance with their design.</li> </ul>

	<ul style="list-style-type: none"> <li>Taste testing and scoring final products.</li> <li>Suggesting and writing up points of improvements when scoring others' dishes,</li> <li>and when evaluating their own throughout the planning, preparation and cooking process.</li> <li>Evaluating health and safety in production to minimise cross contamination.</li> </ul>	<ul style="list-style-type: none"> <li>Assembling components accurately to make a stable frame.</li> <li>Understanding that for the frame to function effectively the components must be cut accurately and the joints of the frame secured at right angles.</li> <li>Selecting appropriate materials based on the materials being joined and the speed at which the glue needs to dry/set.</li> </ul> <p><b>Evaluate:</b></p> <ul style="list-style-type: none"> <li>Evaluating the work of others and receiving feedback on own work.</li> <li>Applying points of improvement to their toys.</li> <li>Describing changes, they would make/do if they were to do the project again.</li> </ul>	<ul style="list-style-type: none"> <li>Testing and adapting a design to improve it as it is developed.</li> <li>Identifying what makes a successful structure.</li> </ul>	<ul style="list-style-type: none"> <li>Sewing a strong running stitch, making small, neat stitches and following the edge.</li> <li>Tying strong knots.</li> <li>Decorating a waistcoat, attaching features (such as appliqué) using thread.</li> <li>Finishing the waistcoat with a secure fastening (such as buttons).</li> <li>Learning different decorative stitches.</li> <li>Sewing accurately with evenly spaced, neat stitches.</li> </ul> <p><b>Evaluate</b></p> <ul style="list-style-type: none"> <li>Reflecting on their work continually throughout the design, make and evaluate process.</li> </ul>
<b>Key Assessment Opportunity</b>	<b>Key Assessment Opportunity-</b> Week 4 – Application- children to prepare part of a meal each week. Complete dessert by week 4 and quiz	<b>Key Assessment Opportunity</b> Make a playground structure/apparatus and surrounding landscape	<b>Key Assessment Opportunity</b>	<b>Key Assessment Opportunity</b> Week 4 – Application – the making of the waistcoat- fashion show to share design