

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
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Year 1	<p><b>Topic – castle structures</b></p> <p><b>NC big ideas:</b></p> <ul style="list-style-type: none"> <li>structures (freestanding)</li> <li>design, make and evaluate a castle structure; e.g throne, bed, table, drawbridge</li> </ul> <p><b>Specific knowledge:</b></p> <ul style="list-style-type: none"> <li>different types of structures</li> <li>how to join, strengthen, stabilise structures</li> <li>expand on specific castle structures</li> </ul> <p><b>Specific skills:</b></p> <ul style="list-style-type: none"> <li>simple designing and labeling of castle structure</li> <li>cutting, sticking, gluing, joining, covering, decorating</li> <li>reflect and evaluate freestanding castle structure</li> </ul> <p><b>Links: History</b> – castles</p> <p><b>Visits/Experiences:</b> use tower of London trip as a hook to remind them about different castle structures. Experience of using and playing with different constructions to make structures. School and playground walk to identify various structures in their environment.</p> <p><b>Number of lessons:</b></p>		<p><b>Topic- Explorer puppets</b></p> <p><b>NC big ideas:</b></p> <ul style="list-style-type: none"> <li>textiles (joining)</li> <li>design, make and evaluate a hand puppet</li> </ul> <p><b>Specific knowledge:</b></p> <ul style="list-style-type: none"> <li>learn about types of puppets</li> <li>understand different materials according to their properties</li> <li>recognize different ways to join</li> <li>identifying features/ clothes/ equipment of different types of explorers</li> </ul> <p><b>Specific skills:</b></p> <ul style="list-style-type: none"> <li>simple designing and labeling of puppet</li> <li>joining, cutting, sewing, decorating, gluing</li> <li>reflect and evaluate final puppet</li> </ul> <p><b>Links:</b> Geography - Explorers</p> <p><b>Visits/Experiences:</b> Exposure to different types of puppets and a range of textiles and decorative materials</p> <p><b>Number of lessons: 8</b></p>		<p><b>Topic- West ham information Booklets</b></p> <p><b>NC big ideas:</b></p> <ul style="list-style-type: none"> <li>Sliders and levers</li> <li>design, make and evaluate a booklets with different moving mechanisms e.g. a slider, lever, spinner, flap</li> </ul> <p><b>Specific knowledge:</b></p> <ul style="list-style-type: none"> <li>learn about different mechanisms and how they create different movement, eg slider, hinge, flaps and spins</li> <li>knowledge about the different part of west ham park</li> </ul> <p><b>Specific skills:</b></p> <ul style="list-style-type: none"> <li>creating mock up with paper of different moving mechanisms</li> <li>cutting, joining and drawing</li> <li>reflect and evaluate moving info booklet</li> </ul> <p><b>Links: geography</b> – Mapping at West Ham park</p> <p><b>Visits/Experiences:</b> visit to west ham park Exploring different mechanisms around classroom and in books etc.</p> <p><b>Number of lessons:</b></p>	

<p><b>Year 2</b></p>	<p style="text-align: center;"><b><u>Topic- fire of London – Cart</u></b></p> <p><b>NC big ideas:</b></p> <ul style="list-style-type: none"> <li>• Mechanisms (Wheels and axles)</li> <li>• Design, make and evaluate a moving cart</li> </ul> <p><b>Specific knowledge</b></p> <ul style="list-style-type: none"> <li>• Fire of London Story</li> <li>• Knowledge of vehicle parts and functions</li> <li>• Understanding of axle, chassis and wheels purposes</li> <li>• selecting different materials according to their properties</li> </ul> <p><b>Specific skills:</b></p> <ul style="list-style-type: none"> <li>• technical drawing and labeling</li> <li>• cutting, measuring and joining/ strengthening wood</li> <li>• reflect and evaluate cart</li> </ul> <p><b>Links: History- fire of London</b></p> <p><b>Visits/Experiences:</b> Trip to the London museum Exposure to Fire of London story, time period etc. explore constructions to build vehicles</p> <p><b>Number of lessons:</b></p>	<p style="text-align: center;"><b><u>Topic- healthy fruit salad</u></b></p> <p><b>NC big ideas:</b></p> <ul style="list-style-type: none"> <li>• Food (preparing fruit/ veg)</li> <li>• Design, make and evaluate a fruit salad</li> </ul> <p><b>Specific knowledge</b></p> <ul style="list-style-type: none"> <li>• understanding healthy eating</li> <li>• hygiene, health and safety when making food</li> <li>• different ways to prepare fruit</li> </ul> <p><b>Specific skills:</b></p> <ul style="list-style-type: none"> <li>• designing and labeling fruit salad</li> <li>• cutting, deseeding, hulling peeling, grating , mixing different fruits</li> <li>• reflect and evaluate the taste of fruit combination</li> </ul> <p><b>Links: science – healthy eating</b></p> <p><b>Visits/Experiences:</b> tasting a variety of fruit, including more exotic fruits- pineapple, mangos, papaya etc. Preparing different fruits using different utensils- knife, grater, peeler etc.</p> <p><b>Number of lessons:</b></p>	
<p><b>Year 3</b></p>	<p style="text-align: center;"><b><u>Topic- Stone age Shelters</u></b></p> <p><b>NC big ideas:</b></p> <ul style="list-style-type: none"> <li>• structures (frame structures)</li> <li>• design, make and evaluate a shelter</li> </ul> <p><b>Specific knowledge:</b></p> <ul style="list-style-type: none"> <li>• research different home structures/ frames; the formation and the purposes of these shelters</li> <li>• investigate a range of materials, strengthening and joining techniques to</li> </ul>		<p style="text-align: center;"><b><u>Topic- Olympic Torch</u></b></p> <p><b>NC big ideas:</b></p> <ul style="list-style-type: none"> <li>• electrical systems (simple circuits/ switches)</li> <li>• design, make and evaluate an electrical torch for modern day Olympics</li> </ul> <p><b>Specific knowledge</b></p> <ul style="list-style-type: none"> <li>• understanding of the origins of Olympics from Ancient Greece through computer research</li> </ul>

	<p>make informed decisions for their shelter design</p> <ul style="list-style-type: none"> <li>• understanding how to strengthen, stiffen and reinforce 3D frameworks</li> </ul> <p><b>Specific skills:</b></p> <ul style="list-style-type: none"> <li>• technical drawing and annotation of shelter design</li> <li>• measuring, cutting, joining, shaping and finishing techniques with different material</li> <li>• evaluate their final shelter critically, identifying strengths and areas of weaknesses</li> </ul> <p><b>Links:</b> History- stone age</p> <p><b>Visits/Experiences:</b> Stone age/ shelters PowerPoint Exploring and range of building and joining materials</p> <p><b>Number of lessons:</b></p>		<ul style="list-style-type: none"> <li>• identifying the components such as bulbs, wire, switches and their functions to make a simple working circuit</li> <li>• knowledge of torches and their part/ functions</li> </ul> <p><b>Specific skills:</b></p> <ul style="list-style-type: none"> <li>• constructing various electric circuits with different components</li> <li>• technical drawing and annotation of torch</li> <li>• creating torch using different materials</li> <li>• evaluate their final torch critically, identifying strengths and areas of weaknesses</li> </ul> <p><b>Links: History</b> – Ancient Greece Computing – internet</p> <p><b>Visits/Experiences:</b> - exploring electrical components and materials that can conduct electricity. Making various types of circuits.</p> <p><b>Number of lessons:</b></p>
<p><b>Year 4</b></p>	<p style="text-align: center;"><u><b>Topic- Romans</b></u></p> <p><b>NC big ideas:</b></p> <ul style="list-style-type: none"> <li>• mechanisms (levers and linkages)</li> <li>• design, make and evaluate a roman solidor on a horse with moving mechanisms.</li> </ul> <p><b>Specific knowledge:</b></p> <ul style="list-style-type: none"> <li>• understand and use of different lever and linkages mechanisms and movements</li> <li>• distinguish between fixed and loose pivots</li> <li>• knowledge about the Romans</li> </ul> <p><b>Specific skills:</b></p> <ul style="list-style-type: none"> <li>• technical drawing and annotation of different mechanisms</li> </ul>	<p style="text-align: center;"><u><b>Topic- rice dish</b></u></p> <p><b>NC big ideas:</b></p> <ul style="list-style-type: none"> <li>• food (healthy/varied diet)</li> <li>• design, make and evaluate a healthy rice dish</li> </ul> <p><b>Specific knowledge:</b></p> <ul style="list-style-type: none"> <li>• understanding of how rice grows in wet climates</li> <li>• nutrition value of different types of rice</li> <li>• understanding healthy eating and varied and balanced diets</li> <li>• hygiene, health and safety when making food</li> </ul> <p><b>Specific skills:</b></p> <ul style="list-style-type: none"> <li>• researching, designing and annotating rice dish</li> <li>• cut, measure, combine different ingredients</li> </ul>	<p style="text-align: center;"><u><b>Topic- William Morris cushion cover</b></u></p> <p><b>NC big ideas:</b></p> <ul style="list-style-type: none"> <li>• textiles (2D shape – 3D product)</li> <li>• design, make and evaluate a Victorian style cushion cover</li> <li>• using computing to make repeating patterns</li> </ul> <p><b>Specific knowledge:</b></p> <ul style="list-style-type: none"> <li>• Victorian times and William Morris designs</li> <li>• Understanding how to make a flat piece of fabric into a 3d product</li> <li>• Learning how to make stamps on dazzle</li> <li>• understand different materials according to their properties</li> <li>• recognize different ways to join and fasten</li> </ul>

	<ul style="list-style-type: none"> <li>cut, shape and join paper and card to create mechanisms</li> <li>evaluate their final mechanism products critically, identifying strengths and areas of weaknesses</li> </ul> <p><b>Links:</b> History-Romans</p> <p><b>Visits/Experiences:</b> investigating different mechanisms around classroom, products and in books etc.</p> <p><b>Number of lessons:</b></p>	<ul style="list-style-type: none"> <li>evaluate their rich dish critically, identifying strengths and areas of weaknesses</li> </ul> <p><b>Links:</b> geography – climate change Science – healthy eating</p> <p><b>Visits/Experiences:</b> Preparing using different utensils-, rice cooker, stove, knife, grater, peeler etc. Tasting a variety of differing dishes with different vegetable</p> <p><b>Number of lessons:</b></p>	<p><b>Specific skills:</b></p> <ul style="list-style-type: none"> <li>technical drawing and annotation of cushion</li> <li>cutting, stitching, joining,</li> <li>Using dazzle to make repeating pattern stamps</li> <li>evaluate cushion cover critically, identifying strengths and areas of weaknesses</li> </ul> <p><b>Links:</b> History – Victorians Computing - dazzle</p> <p><b>Visits/Experiences:</b> Visit to the William Morris gallery, visit to Ragged School museum in Stepney. Exploring range of materials and dazzle</p> <p><b>Number of lessons:</b></p>
<p><b>Year 5</b></p>	<p><b><u>Topic- Egyptian slippers</u></b></p> <p><b>NC big ideas:</b></p> <ul style="list-style-type: none"> <li>textiles (combining different fabric shapes)</li> <li>design, make and evaluate slippers</li> </ul> <p><b>Specific knowledge:</b></p> <ul style="list-style-type: none"> <li>learn about slippers and their pattern pieces</li> <li>understand different materials according to their properties and how to strengthen, stiffen or reinforce fabrics</li> <li>recognize different ways to sew to join and decorate (running stitch, hem stitch, applique stitch, satin stitch)</li> <li>produce detailed list of equipment, fabric and methodology</li> </ul> <p><b>Specific skills:</b></p> <ul style="list-style-type: none"> <li>create a paper prototype to model how show will be constructed</li> </ul>	<p><b><u>Topic- moon buggies</u></b></p> <p><b>NC big ideas:</b></p> <ul style="list-style-type: none"> <li>mechanisms (pulleys and gears)</li> <li>design, make and evaluate moon buggies</li> </ul> <p><b>Specific knowledge:</b></p> <ul style="list-style-type: none"> <li>learning about everyday products and toys that use pulleys to work</li> <li>understand that mechanical systems have an input, process and output</li> <li>produce detailed list of equipment, materials and methodology</li> </ul> <p><b>Specific skills:</b></p> <ul style="list-style-type: none"> <li>detailed technical drawing and annotation of moon buggy with reasoning</li> <li>measuring, sawing, joining, strengthening and stiffening</li> </ul>	

	<ul style="list-style-type: none"> <li>● detailed technical drawing and annotation of slipper with reasoning</li> <li>● sewing, cutting, joining and decorating</li> <li>● compare to original design, test and evaluate their final slippers critically, identifying strengths and areas of weaknesses and how to improve it</li> </ul> <p><b>Links:</b> History – Ancient Egypt</p> <p><b>Visits/Experiences:</b> Exploring an range of fabrics and joining/ decorating techniques</p> <p><b>Number of lessons:</b></p>	<ul style="list-style-type: none"> <li>● compare to original design, test and evaluate their moon buggies critically, identifying strengths and areas of weaknesses and how to improve it</li> </ul> <p><b>Links:</b> Science – Space</p> <p><b>Visits/Experiences:</b> Exploring different products and toys that use pulleys and gears to work. Watching videos and photographs of products that cannot be explored through firsthand experience.</p> <p><b>Number of lessons:</b></p>	
<p><b>Year 6</b></p>	<p><b><u>Topic- tea blending and packaging</u></b></p> <p><b>NC big ideas:</b></p> <ul style="list-style-type: none"> <li>● food (celebrating culture/ seasonality)</li> <li>● structures (shell structures)</li> <li>● design, make and evaluate tea blend/ package</li> </ul> <p><b>Specific knowledge:</b></p> <ul style="list-style-type: none"> <li>● learn about tea and how to blend and create different flavours</li> <li>● understand different materials and their properties</li> <li>● develop knowledge of nets of different shapes</li> <li>● understand how to construct stiff, shell structures</li> <li>● produce detailed list of equipment, fabric and methodology</li> </ul> <p><b>Specific skills:</b></p> <ul style="list-style-type: none"> <li>● detailed technical drawing and annotation of tea bag/ packaging with reasoning</li> <li>● testing and blend different tea combinations and flavours</li> </ul>	<p><b><u>Topic</u></b></p> <p><b>NC big ideas:</b></p> <ul style="list-style-type: none"> <li>● electrical systems (complex switches/ circuits, incl. computing)</li> <li>● design, make and evaluate a burglar alarm</li> </ul> <p><b>Specific knowledge:</b></p> <ul style="list-style-type: none"> <li>● identify the components such as bulbs, wire, switches and their functions to make different electrical circuits</li> <li>● knowledge of burglar alarms and parts/ functions</li> <li>● produce detailed list of equipment, components and methodology</li> <li>● understand how through ‘crumbl’ computing can program, monitor and control their burglar alarm</li> </ul> <p><b>Specific skills:</b></p> <ul style="list-style-type: none"> <li>● explore constructing various electric circuits with different components</li> <li>● detailed technical drawing and annotation of burglar alarm with reasoning</li> <li>● select and accurately create a burglar alarm using different materials/ components</li> </ul>	

	<ul style="list-style-type: none"> <li>• using computing software- Photoshop to develop packaging/ adverts</li> <li>• compare to original design, test and evaluate their tea and packaging critically, identifying strengths and areas of weaknesses and how to improve it</li> </ul> <p><b>Links:</b> History – tea Computing – Photoshop</p> <p><b>Visits/Experiences:</b> Visiting Cutty Sark Tasting different teas and blending tea first hand. Exploring a range of materials</p> <p><b>Number of lessons:</b></p>	<ul style="list-style-type: none"> <li>• compare to original design, test and evaluate their burglar alarm critically, identifying strengths and areas of weaknesses and how to improve it</li> </ul> <p><b>Links:</b> Science – Electricity Computing- Crumbl</p> <p><b>Visits/Experiences:</b> Exploring electrical components to make various circuits</p> <p>Number of lessons:</p>	
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