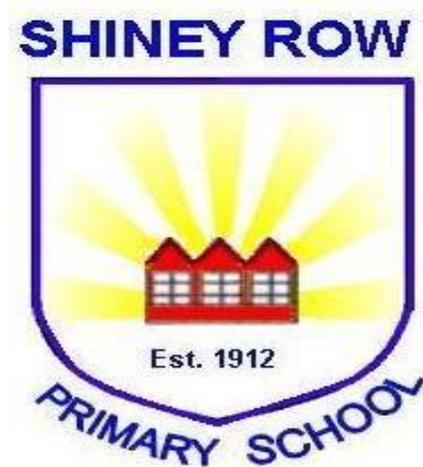


# Shiney Row Primary School



## Design and Technology Scheme of Work

## Shiney Row Primary School Design and Technology Scheme of Work Year One

Term	Topic	Objectives
<b>Autumn</b>	<b>Building/Structure My School</b>	<ul style="list-style-type: none"> <li>• Use materials to (practise drilling, screwing, gluing, joining and nailing) make and strengthen products, stiffen products/structures and make them more stable.</li> <li>• Cut materials safely using tools, measure and mark out to the nearest cm.</li> <li>• Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling) and a range of joining techniques (such as gluing, hinges or combining materials to strengthen).</li> <li>• Design, make and refine products that have a clear purpose and intended user.</li> <li>• Explore objects and designs to identify likes and dislikes.</li> <li>• Suggest improvements to existing designs.</li> </ul>
<b>Spring</b>	<b>Winding Mechanism Castles; drawbridges</b>	<ul style="list-style-type: none"> <li>• Explore and create simple mechanisms; leavers, sliders, wheels and axles.</li> <li>• Cut materials safely using tools, measure and mark out to the nearest cm.</li> <li>• Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling) and a range of joining techniques (such as gluing, hinges or combining materials to strengthen).</li> <li>• Design, make and refine products that have a clear purpose and intended user.</li> <li>• Explore designs to identify likes and dislikes, suggest improvements to existing designs.</li> </ul>
<b>Summer</b>	<b>Moving Picture</b>	<ul style="list-style-type: none"> <li>• Explore and create simple mechanisms; leavers, sliders, wheels and axles.</li> <li>• Cut materials safely using tools, measure and mark out to the nearest cm.</li> <li>• Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling) and a range of joining techniques (such as gluing, hinges or combining materials to strengthen).</li> <li>• Design, make and refine products that have a clear purpose and intended user.</li> <li>• Explore designs to identify likes and dislikes, suggest improvements.</li> </ul>



## Shiney Row Primary School Design and Technology Scheme of Work Year Two



Term	Topic	Objectives
<b>Autumn</b>	<b>Food How to make party food healthy.</b>	<ul style="list-style-type: none"><li>• Design, make and refine products that have a clear purpose and intended user.</li><li>• Explore designs to identify likes and dislikes, suggest improvements.</li><li>• Cut, peel or grate ingredients safely and hygienically.</li><li>• Measure or weigh using measuring cups or electronic scales.</li><li>• Assemble or cook ingredients.</li><li>• Understand what is a healthy and balanced diet.</li></ul>
<b>Spring</b>	<b>Textiles Puppets from a story book</b>	<ul style="list-style-type: none"><li>• Design, make and refine products that have a clear purpose and intended user.</li><li>• Explore designs to identify likes and dislikes, suggest improvements.</li><li>• Shape textiles using templates.</li><li>• Join textiles using a running stitch.</li><li>• Colour and decorate textiles using a number of techniques (such as dyeing, adding sequins or printing).</li><li>• Cut materials safely using tools, measure and mark out to the nearest cm.</li></ul>
<b>Summer</b>	<b>Mechanism linked to; The worlds First, vehicles.</b>	<ul style="list-style-type: none"><li>• Explore and create simple mechanisms; leavers, sliders, wheels and axles.</li><li>• Cut materials safely using tools, measure and mark out to the nearest cm.</li><li>• Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling) and a range of joining techniques (such as gluing, hinges or combining materials to strengthen).</li><li>• Design, make and refine products that have a clear purpose and intended user.</li><li>• Explore designs to identify likes and dislikes, suggest improvements to existing designs.</li><li>• Make a moving vehicle with an axel and wheels.</li></ul>

## Shiney Row Primary School Design and Technology Scheme of Work Year Three

Term	Topic	Objectives
<b>Autumn</b>	<b>Book with moving parts Egypt</b>	<ul style="list-style-type: none"> <li>• To cut materials accurately and safely by selecting appropriate tools.</li> <li>• Measure and mark out to the nearest mm, select appropriate joining techniques.</li> <li>• Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs).</li> <li>• Use scientific knowledge of the transference of forces to choose appropriate mechanism for a product (such as levers, winding mechanisms, pulleys and gears).</li> <li>• Design with purpose by identifying opportunities to design.</li> <li>• Refine work and techniques as work progresses, continually evaluating product design.</li> <li>• Disassemble products to understand how they work.</li> </ul>
<b>Spring</b>	<b>Lever Mechanism Greek Weapon</b>	<ul style="list-style-type: none"> <li>• To cut materials accurately and safely by selecting appropriate tools.</li> <li>• Measure and mark out to the nearest mm, select appropriate joining techniques.</li> <li>• Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs).</li> <li>• Use scientific knowledge of the transference of forces to choose appropriate mechanism for a product (such as levers, winding mechanisms, pulleys and gears).</li> <li>• Design with purpose by identifying opportunities to design.</li> <li>• Refine work and techniques as work progresses, continually evaluating product design.</li> <li>• Disassemble products to understand how they work.</li> </ul>
<b>Summer</b>	<b>Make a miniature garden with garden structure using natural materials</b>	<ul style="list-style-type: none"> <li>• Identify some of the great designers in all the areas of study (including pioneers in horticultural techniques) to generate ideas for design.</li> <li>• Choose suitable techniques to construct products or to repair items.</li> <li>• Strengthen materials using suitable techniques.</li> <li>• To cut materials accurately and safely by selecting appropriate tools.</li> <li>• Measure and mark out to the nearest mm, select appropriate joining techniques.</li> <li>• Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs).</li> </ul>

## Shiney Row Primary School Design and Technology Scheme of Work Year Four

Term	Topic	Objectives
<b>Autumn</b>	<b>Electrical Control Burglar trap</b>	<ul style="list-style-type: none"> <li>• Electrical systems – create series and parallel circuits.</li> <li>• To cut materials accurately and safely by selecting appropriate tools.</li> <li>• Measure and mark out to the nearest mm, select appropriate joining techniques.</li> <li>• Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs).</li> <li>• Use scientific knowledge of the transference of forces to choose appropriate mechanism for a product (such as levers, winding mechanisms, pulleys and gears).</li> <li>• Design with purpose by identifying opportunities to design.</li> <li>• Refine work and techniques as work progresses, continually evaluating product design.</li> <li>• Disassemble products to understand how they work.</li> </ul>
<b>Spring</b>	<b>Roman Feast</b>	<ul style="list-style-type: none"> <li>• Prepare ingredients hygienically using appropriate utensils.</li> <li>• Measure ingredients to the nearest gram accurately.</li> <li>• Follow a recipe</li> <li>• Assemble or cook ingredients (controlling the temperature of the oven or hob, if cooking).</li> </ul>
<b>Summer</b>	<b>Textiles Coasts</b>	<ul style="list-style-type: none"> <li>• Use a range of techniques linked to fabrics e.g. sewing, weaving, proggy mat etc)</li> <li>• Understand the need for seam allowance.</li> <li>• Join textiles with appropriate stitching.</li> <li>• Select the most appropriate techniques to decorate textiles.</li> </ul>



## Shiney Row Primary School Design and Technology Scheme of Work Year Five



Term	Topic	Objectives
<b>Autumn</b>	<b>Space Buggy Electronically controlled</b>	<ul style="list-style-type: none"><li>• Electric systems – create circuits using electronic kits that employ a number a number of components (such as LED's, resistors, transistors and chips).</li><li>• Cut materials with precision and refine the finish.</li><li>• Show an understanding of the qualities of materials to choose a appropriate tools to cut and shape.</li><li>• Develop a range of practical skills to create and strengthen products (such as cutting, drilling and screwing, mailing, gluing, filling and sanding) and more complex structures).</li><li>• Design with the user in mind, motivated by the service a product will offer.</li><li>• Make products through stages of prototypes, making continual refinements.</li><li>• Ensure products have high quality finish, using art skills where appropriate.</li><li>• Evaluate the design of products so as to suggest improvements to the user experience.</li></ul>
<b>Spring</b>	<b>Textiles Tapestry</b>	<ul style="list-style-type: none"><li>• Create objects that employ a seam allowance.</li><li>• Join textiles with a combination of stitching techniques (such as back stitch for seams and running stitch to attach decoration).</li><li>• Use the qualities of materials to create suitable visual and tactile effects in the decoration of textiles.</li></ul>
<b>Summer</b>	<b>Forces vehicles Linked to science topic.</b>	<ul style="list-style-type: none"><li>• Convert rotary motion to linear using cams.</li><li>• Use innovative combinations of electronics (or computing) and mechanics in product design.</li><li>• Cut materials with precision and refine the finish.</li><li>• Show an understanding of the qualities of materials to choose a appropriate tools to cut and shape.</li><li>• Develop a range of practical skills to create and strengthen products (such as cutting, drilling and screwing, mailing, gluing, filling and sanding) and more complex structures).</li><li>• Design with the user in mind, motivated by the service a product will offer.</li><li>• Make products through stages of prototypes, making continual refinements.</li></ul>



## Shiney Row Primary School Design and Technology Scheme of Work Year Six



Term	Topic	Objectives
<b>Autumn</b>	<b>Shelters</b>	<ul style="list-style-type: none"><li>• Cut materials with precision and refine the finish.</li><li>• Show an understanding of the qualities of materials to choose a appropriate tools to cut and shape.</li><li>• Develop a range of practical skills to create and strengthen products (such as cutting, drilling and screwing, mailing, gluing, filling and sanding) and more complex structures).</li><li>• Design with the user in mind, motivated by the service a product will offer.</li><li>• Make products through stages of prototypes, making continual refinements.</li><li>• Ensure products have high quality finish, using art skills where appropriate.</li><li>• Evaluate the design of products so as to suggest improvements to the user experience.</li></ul>
<b>Spring</b>	<b>Food rationing</b>	<ul style="list-style-type: none"><li>• Understand the importance of correct storage and handling of ingredients (using knowledge of micro-organisms)</li><li>• Measure accurately and calculate ratios of ingredients to scale up or down from a recipe</li><li>• Demonstrate a range of cooking and baking techniques.</li><li>• Create and refine recipes, including ingredients, methods, cooking times and temperature.</li></ul>
<b>Summer</b>	<b>Make a photo frame linked to My Life at Shiney Row</b>	<ul style="list-style-type: none"><li>• Cut materials with precision and refine the finish.</li><li>• Show an understanding of the qualities of materials to choose a appropriate tools to cut and shape.</li><li>• Develop a range of practical skills to create and strengthen products (such as cutting, drilling and screwing, mailing, gluing, filling and sanding) and more complex structures).</li><li>• Design with the user in mind, motivated by the service a product will offer.</li><li>• Make products through stages of prototypes, making continual refinements.</li><li>• Ensure products have high quality finish, using art skills where appropriate.</li><li>• Evaluate the design of products so as to suggest improvements to the user experience.</li></ul>

