

<u>Year Group</u>	<u>Autumn</u>	<u>Spring</u>	<u>Summer</u>
<p><u>Reception</u></p> <ul style="list-style-type: none"> • Design products that have a purpose. • Explore objects and designs to identify likes and dislikes of the designs. • Suggest improvements to existing designs. 	<p>Mechanisms Sliders</p> <ul style="list-style-type: none"> • Cut materials safely using tools provided. <p>and/or</p> <p>Salt Dough</p> <ul style="list-style-type: none"> • Measuring using number of spoons • Use cutter • Spoon ingredients between containers • Mix ingredients together • Use a rolling pin 	<p>Mechanisms Wheels and Axles</p> <p>Create a toy (joining techniques)</p> <ul style="list-style-type: none"> • Cut materials safely using tools provided. - Join materials <p>or</p> <p>Create a boat for the gingerbread man (joining techniques)</p> <ul style="list-style-type: none"> • Cut materials safely using tools provided. - Join materials 	<p>Food Preparing Fruit and Vegetables</p> <p>Fruit kebabs</p> <ul style="list-style-type: none"> • Hygiene • Follow instructions given by adult one at a time • Preparation e.g. Washing fruit • Cutting soft fruits • Peel orange • Pulling grapes from vine • Name equipment • Taste and give opinion
<p><u>Year 1</u></p> <ul style="list-style-type: none"> • Design products that have a clear purpose and an intended user. • Explore objects and designs to identify likes and dislikes of the designs. • Suggest improvements to existing designs. 	<p>Mechanisms Levers</p> <p>Scenes from class text</p> <ul style="list-style-type: none"> • Cut materials safely using tools provided. 	<p>Structures Freestanding Structures</p> <p>Making a chair for a toy/character.</p> <ul style="list-style-type: none"> • Cut materials safely using tools provided. 	<p>Food Preparing fruit and vegetables</p> <p>Smoothies</p> <ul style="list-style-type: none"> • Cut ingredients safely and hygienically. • Assemble ingredients. • Follow recipe supported by adult

	<ul style="list-style-type: none"> • Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling). • Use materials to practise drilling, screwing, gluing and nailing materials to make and strengthen products. 	<ul style="list-style-type: none"> • Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling). • Use materials to practise drilling, screwing, gluing and nailing materials to make and strengthen products. 	<ul style="list-style-type: none"> • Preparation e.g. Washing fruit • Cutting harder fruits (bridge technique) • Mix, spoon, snip • Name equipment • Taste and give opinion
<p><u>Year 2</u></p> <ul style="list-style-type: none"> • Make products, refining the design as work progresses. • Use software to design. • Explore objects and designs to identify likes and dislikes of the designs. • Suggest improvements to existing designs. • Explore how products have been created. 	<p>Mechanisms Wheels and Axles</p> <p>Making a small wheeled trolley for character in story</p> <ul style="list-style-type: none"> • Measure and mark out to nearest cm. • Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen). 	<p>Textiles Templates and joining techniques</p> <p>Create a puppet</p> <ul style="list-style-type: none"> • Join textiles using running stitch. • Colour and decorate textiles using a number of techniques • Shape textiles e.g. using templates. 	<p>Food Preparing fruit and vegetables</p> <p>Pasta salad</p> <ul style="list-style-type: none"> • Cut, peel or grate ingredients safely and hygienically. • Measure or weigh using measuring cups or electronic scales. • Cutting using fork to secure or bridge method • Follow recipe with adult support • Preparation e.g. Washing fruit
<p><u>Year 3</u></p> <ul style="list-style-type: none"> • Design with purpose by identifying opportunities to design. • Make products by working efficiently (such as by carefully selecting materials). • Refine work and techniques as work progresses, evaluating the end product design. • Identify some of the great designers in all of the areas of study to generate ideas for designs. 	<p>Structures Shell Structures</p> <p>Design and make packaging for a gift</p> <ul style="list-style-type: none"> • Cut materials accurately and safely by selecting appropriate tools. • Select appropriate joining techniques. 	<p>Textiles 2D shape to a 3D product</p> <p>Pencil case</p> <ul style="list-style-type: none"> • Understand the need for a seam allowance. • Join textiles with appropriate stitching. 	<p>Food Healthy and varied diet</p> <p>Sandwich/wrap</p> <ul style="list-style-type: none"> • Prepare ingredients hygienically using appropriate utensils. • Measure accurately. • Follow a recipe with guidance. • Assemble ingredients • Cutting using fork or claw grip • Follow recipe with guidance

<ul style="list-style-type: none"> • Improve upon existing designs, giving reasons for choices. 			<ul style="list-style-type: none"> • Peeling, grate firmer foods, spread, mix, spoon, snip
<p style="text-align: center;"><u>Year 4</u></p> <ul style="list-style-type: none"> • Design with purpose by identifying opportunities to design. • Make products by working efficiently • Refine work and techniques as work progresses, continually evaluating the product design. • Use software to design and represent product designs. • Identify some of the great designers in all of the areas of study (including pioneers in horticultural techniques) to generate ideas for designs. • Disassemble products to understand how they work. 	<p style="text-align: center;">Mechanical Systems Levers and Linkages</p> <p style="text-align: center;">Greetings card with moving parts</p> <ul style="list-style-type: none"> • Measure and mark out to the nearest mm. • Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs). • Use scientific knowledge to choose appropriate mechanisms for a product. 	<p style="text-align: center;">Food Healthy and varied diet</p> <p style="text-align: center;">Stir fry (link to Chinese New Year)</p> <ul style="list-style-type: none"> • Prepare ingredients hygienically using appropriate utensils. • Measure ingredients to the nearest gram using electronic scales. • Assemble and cook ingredients (controlling the temperature of the oven or hob). • Follow a recipe with guidance. • Cutting using fork or claw grip • Follow recipe with guidance • Peeling, grate firmer foods, spread, mix, spoon, snip 	<p style="text-align: center;">Electrical Systems Simple circuits and switches</p> <p style="text-align: center;">Air raid shelter and siren or torch</p> <ul style="list-style-type: none"> • Recognise if a battery-operated device works or not. • Diagnose faults in battery operated devices (such as low battery, water damage or battery terminal damage). • Create series circuits • Create parallel circuits.
<p style="text-align: center;"><u>Year 5</u></p> <ul style="list-style-type: none"> • Design with the user in mind, motivated by the service a product will offer. • Make products through stages of prototypes, making continual refinements. 	<p style="text-align: center;">Food Celebrating culture and seasonality</p> <p style="text-align: center;">Apple Pie</p> <ul style="list-style-type: none"> • Prepare ingredients hygienically 	<p style="text-align: center;">Textiles Combining different fabric shapes</p> <p style="text-align: center;">Satchel/leaf cushion</p> <ul style="list-style-type: none"> • Create objects that employ a seam allowance. 	<p style="text-align: center;">Mechanical Systems Pulleys/gears</p> <p style="text-align: center;">Making a new toy vehicle for younger sibling.</p> <ul style="list-style-type: none"> • Cut materials with precision and refine the finish with appropriate

<ul style="list-style-type: none"> • Ensure products have a high-quality finish, using art skills where appropriate. • Combine elements of design from a range of inspirational designers throughout history. • Create innovative designs that improve upon existing products. 	<ul style="list-style-type: none"> • Select appropriate utensils for purpose • Understand the importance of correct storage and handling of ingredients (knowledge of micro-organisms). • Demonstrate a range of baking and cooking techniques. • Use electronic scales • Control temperature of oven • Know the difference between tsp and tbsp • Follow recipe independently • Prepare ingredients • Cutting using fork or claw grip • Peeling, snip, grate firmer foods, spread, mix, fold • Spoon- gauging quantities 	<ul style="list-style-type: none"> • Join textiles with a combination of stitching techniques (e.g. back stitch for seams and running stitch to attach decoration). • Show an understanding of the qualities of materials to choose appropriate tools to cut and shape (e.g. the nature of fabric may require sharper scissors than would be used to cut paper). • Select the most appropriate techniques to decorate textiles 	<ul style="list-style-type: none"> tools (such as sanding wood after cutting or a more precise scissor cut after roughly cutting out a shape). • Develop a range of practical skills to create products (e.g cutting, drilling and screwing, nailing, gluing, filling and sanding). • Convert rotary motion to linear using cams.
<p style="text-align: center;"><u>Year 6</u></p> <ul style="list-style-type: none"> • Design with the user in mind, motivated by the service a product will offer (rather than simply for profit). • Use prototypes, cross-sectional diagrams and computer aided designs to represent designs. • Combine elements of design from a range of inspirational designers throughout history, giving reasons for choices. • Evaluate the design of products to suggest improvements to the user experience. 	<p style="text-align: center;">Structures Frame structures</p> <p style="text-align: center;">Making a small bird hide for the peace garden.</p> <ul style="list-style-type: none"> • Show an understanding of the qualities of materials to choose appropriate tools to cut and shape. • Develop a range of practical skills to create products. 	<p style="text-align: center;">Electrical Systems More complex switches</p> <p style="text-align: center;">Making an alarm to protect a valuable item</p> <ul style="list-style-type: none"> • Create circuits using electronics kits that employ a number of components (LEDs, resistors, transistors and chips) with increasing confidence. 	<p style="text-align: center;">Food Celebrating culture and seasonality</p> <p style="text-align: center;">Bread/savoury scones</p> <ul style="list-style-type: none"> • Prepare ingredients hygienically • Measure accurately using electronic scales and calculate ratios of ingredients to scale up or down from recipe. • Create and refine recipes, including ingredients, methods, cooking times and temperatures. • Select temperature of oven

			<ul style="list-style-type: none">• Understand how ingredients should be stored• Select appropriate utensils• Follow recipe independently• Cutting using fork or claw grip• Peeling, snip, grate, spread, mix, fold• Spoon- gauging quantities
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