

**Nursery**

Check Points Aut 1	Check Points Aut 2	Check Points Spr 1	Check Points Spr 2	Check Points Sum 1	Check Points Sum 2
<p><b>Knowledge</b> How to model different materials.</p> <p><b>Skills</b> Cutting and sticking.</p>	<p><b>Knowledge</b> Notice and explain changes.</p> <p><b>Skills</b> Can mix. Can use a wooden spoon.</p>	<p><b>Knowledge</b> How to assemble materials.</p> <p><b>Skills</b> Can use a hole punch.</p>	<p><b>Knowledge</b> How to construct a house.</p> <p><b>Skills</b> Can use building bricks. Can share their creation.</p>	<p><b>Knowledge</b></p> <p><b>Skills</b></p>	<p><b>Knowledge</b> How to construct and join materials.</p> <p><b>Skills</b> Can join different materials.</p>
<p><b>END POINTS</b></p> <p>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. Use a range of small tools, including scissors, paint brushes and cutlery Begin to show accuracy and care when drawing.</p>					

**Reception**

Check Points Aut 1	Check Points Aut 2	Check Points Spr 1	Check Points Spr 2	Check Points Sum 1	Check Points Sum 2
<p><b>Knowledge</b></p> <p><b>Skills</b></p>	<p><b>Knowledge</b> How to model different materials to make a moving product.</p> <p><b>Skills</b> Make a vehicle.</p>	<p><b>Knowledge</b> How to design a vehicle.</p> <p><b>Skills</b> Can explain how they made their vehicle.</p>	<p><b>Knowledge</b> How to join materials.</p> <p><b>Skills</b> Can join materials to make a flower.</p>	<p><b>Knowledge</b></p> <p><b>Skills</b></p>	<p><b>Knowledge</b> How to construct a product with a variety of different materials.</p> <p><b>Skills</b> Can edit and improve a product.</p>
<p><b>END POINTS</b></p> <p>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. Use a range of small tools, including scissors, paint brushes and cutlery Begin to show accuracy and care when drawing.</p>					

**YEAR 1**

Check Points Aut 1 Food and Nutrition	Check Points Aut 2	Check Points Spr 1	Check Points Spr 2 Structures	Check Points Sum 1	Check Points Sum 2 Mechanisms
<p><b>Knowledge</b> Know a variety of common fruits. Know the 5 a day rule. Know that animals are reared, caught or farmed. Know about food Hygiene.</p> <p><b>Skills</b> Use the bridge and claw chopping holds safely. Assemble a product.</p>			<p><b>Knowledge</b> Know a freestanding structure. Know that hinges move in different ways. Know suitable materials based on their scientific knowledge of properties.</p> <p><b>Skills</b> Join suitable materials to build a freestanding structure. Make a hinge opening.</p>		<p><b>Knowledge</b> Know what a lever is. Know what a slider is. Know that different mechanisms move differently.</p> <p><b>Skills</b> Create mechanisms (Independently).</p>
<b>END POINTS</b>					

Knowledge	Skills
<p><b>By the end of Year 1 pupils should:</b></p> <ul style="list-style-type: none"> <li>- Know the simple working characteristics of materials and components</li> <li>- Know the movement of simple mechanisms</li> <li>- Know how freestanding structures can be made stronger, stiffer and more stable</li> <li>- Know and use the correct technical vocabulary</li> <li>- Know that food comes from plants or animals and that it is farmed or caught.</li> <li>- Know how to prepare simple dishes safely and hygienically without a heat source, name and sort foods into groups; know that everyone should eat at least five portions of fruit and vegetables a day.</li> </ul>	<p><b>By the end of Year 1 pupils should be able to:</b></p> <ul style="list-style-type: none"> <li>• use simple design criteria; state what their products are, who and what they are for and how they will work.</li> <li>• generate ideas using their own experiences and existing products; use talk, drawing, templates, mock-ups and, where appropriate, computer.</li> <li>• plan by suggesting what to do next; select from a range of tools, equipment, materials and components.</li> <li>• follow procedures for safety and hygiene; measure, mark out, cut, shape, assemble, join, combine and finish a range of materials and components.</li> <li>• make simple judgements about their products and ideas against design criteria.</li> <li>• explore who and what products are for, how they work and are used, what materials they are made from and what they like and dislike about them.</li> </ul>

**YEAR 2**

Check Points Aut 1	Check Points Aut 2 Mechanisms	Check Points Spr 1 Cooking and Nutrition	Check Points Spr 2	Check Points Sum 1 Textiles	Check Points Sum 2

	<p><b>Knowledge</b></p> <p>Know the purpose of axles, axle holders and chassis. Know that axles and axle holders are mechanisms that cause movement. Know the difference between fixed and freely moving axles.</p> <p><b>Skills</b></p> <p>Build a moving mechanism.</p>	<p><b>Knowledge</b></p> <p>Know a variety of vegetables. Know that animals are reared, caught or farmed. Know and demonstrate kitchen hygiene rules. Know the safe chopping holds.</p> <p><b>Skills</b></p> <p>Use the bridge and claw chopping holds safely. Chop a variety of hard vegetables. Assemble a dish.</p>		<p><b>Knowledge</b></p> <p>Know what a pattern template is. Know why we use a paper template. Know a range of textiles equipment and materials. Know running stitch.</p> <p><b>Skills</b></p> <p>Use a pattern template. Join fabrics together.</p>	
<b>END POINTS</b>					

Knowledge	Skills
<p><b>By the end of Year 2 pupils should know:</b></p> <ul style="list-style-type: none"> <li>Know the simple working characteristics of materials and components</li> <li>Know the movement of simple mechanisms</li> <li>Know that materials can be cut, shaped and altered for a specific purpose.</li> <li>Know that materials can be joined using a variety of techniques.</li> <li>Know that food comes from plants or animals and that it is farmed or caught.</li> <li>Know how to prepare simple dishes safely and hygienically without a heat source, name and sort foods into groups; know that everyone should eat at least five portions of fruit and vegetables a day.</li> </ul>	<p><b>By the end of Year 2 pupils should be able to:</b></p> <ul style="list-style-type: none"> <li>use simple design criteria; state what their products are, who and what they are for and how they will work.</li> <li>generate ideas using their own experiences and existing products; use talk, drawing, templates, mock-ups and, where appropriate, computer.</li> <li>plan by suggesting what to do next; select from a range of tools, equipment, materials and components.</li> <li>follow procedures for safety and hygiene; measure, mark out, cut, shape, assemble, join, combine and finish a range of materials and components.</li> <li>make simple judgements about their products and ideas against design criteria.</li> <li>explore who and what products are for, how they work and are used, what materials they are made from and what they like and dislike about them.</li> </ul>

**YEAR 3**

<b>Check Points Aut 1</b>	<b>Check Points Aut 2 Food and Nutrition</b>	<b>Check Points Spr 1</b>	<b>Check Points Spr 2 Mechanical Systems</b>	<b>Check Points Sum 1</b>	<b>Check Points Sum 2 Shell Structures</b>
	<p><b>Knowledge</b></p> <p>Know a wide variety of vegetables. Know the categories of the eatwell plate. Know why a variety of food is needed in a healthy diet.</p>		<p><b>Knowledge</b></p> <p>Know a variety of linkages and levers. Know the difference between fixed and loose pivots. Know the four types of movement.</p>		<p><b>Knowledge</b></p> <p>Know a variety of deconstructed nets. Know different methods to strengthen a structure. Know the three R's.</p> <p><b>Skills</b></p>

	<p>Know that food products are made of several ingredients.</p> <p><b>Skills</b></p> <p>Use the bridge and claw chopping holds safely. Chop a variety of vegetables of the same size.</p>		<p><b>Skills</b></p> <p>Join, cut and manipulate materials. Build moveable products.</p>		<p>Construct a 3D shape from a net. Join suitable materials to create a stable shell structure.</p>
<b>END POINTS</b>					

Knowledge	Skills
<p><b>By the end of Year 3 pupils should:</b></p> <ul style="list-style-type: none"> <li>know that materials have functional and aesthetic qualities</li> <li>know that systems have an input, process and output</li> <li>know how to make strong, stiff shell structures</li> <li>Know how to identify the features of a shell structure.</li> <li>know how to prepare a variety of dishes safely and hygienically;</li> <li>know that a healthy diet is made from a variety and balance of different food and drink</li> <li>know that food and drink are needed to provide energy for the body.</li> </ul>	<p><b>By the end of Year 3 pupils should be able to:</b></p> <ul style="list-style-type: none"> <li>gather information about user needs; develop their own design criteria; describe the user, purpose and design features of their products and explain how they will work.</li> <li>generate realistic ideas based on user needs; use a range of drawing skills, discussion, prototypes, pattern pieces and computer-aided design.</li> <li>order the main stages of making</li> <li>select suitable tools, equipment, materials and components and explain their choices.</li> <li>follow procedures for safety and hygiene; use a wider range of materials and components; measure, mark out, cut, shape, assemble, join, combine and finish with some accuracy.</li> <li>evaluate their ideas and products against their design criteria.</li> <li>investigate how well products have been designed and made, whether they are fit for purpose and meet user needs; why materials have been chosen, the methods of construction used and how well they work.</li> <li>know about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products.</li> </ul>

**YEAR 4**

Check Points Aut 1	Check Points Aut 2 Food and Nutrition	Check Points Spr 1 Electrical Systems	Check Points Spr 2	Check Points Sum 1	Check Points Sum 2 Textiles
	<p><b>Knowledge</b></p> <p>Know the correct food groups of salad components. Know that different foods provide us with different types of energy. Know health and safety and hygiene rules.</p> <p><b>Skills</b></p>	<p><b>Knowledge</b></p> <p>Know the components of an electrical switch. Know how to close a circuit.</p> <p><b>Skills</b></p> <p>Make a circuit. Make a 3D product with a closed circuit. Select materials based on</p>			<p><b>Knowledge</b></p> <p>Know how to make a pattern template. Know how to create running and back stitch.</p> <p><b>Skills</b></p> <p>Make and use a simple paper template. Join fabrics together with</p>

	Assemble and present a healthy dish.	their properties.			stitching. Add a fastening.
<b>END POINTS</b>					

Knowledge	Skills
<p><b>By the end of Year 4 pupils should:</b></p> <ul style="list-style-type: none"> <li>• know that materials have functional and aesthetic qualities</li> <li>• know that systems have an input, process and output</li> <li>• Know how to cut, shape and manipulate materials.</li> <li>• Know a variety of joining techniques.</li> <li>• know that food is grown, reared and caught in the UK, Europe and the wider world.</li> <li>• know how to prepare a variety of dishes safely and hygienically;</li> <li>• know that a healthy diet is made from a variety and balance of different food and drink</li> <li>• know that food and drink are needed to provide energy for the body.</li> </ul>	<p><b>By the end of Year 4 pupils should be able to:</b></p> <ul style="list-style-type: none"> <li>• gather information about user needs; develop their own design criteria; describe the user, purpose and design features of their products and explain how they will work.</li> <li>• generate realistic ideas based on user needs; use a range of drawing skills, discussion, prototypes, pattern pieces and computer-aided design.</li> <li>• order the main stages of making.</li> <li>• select suitable tools, equipment, materials and components and explain their choices.</li> <li>• follow procedures for safety and hygiene; use a wider range of materials and components; measure, mark out, cut, shape, assemble, join, combine and finish with some accuracy.</li> <li>• evaluate their ideas and products against their design criteria.</li> <li>• investigate how well products have been designed and made, whether they are fit for purpose and meet user needs; why materials have been chosen, the methods of construction used and how well they work.</li> <li>• know about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products.</li> </ul>

**YEAR 5**

Check Points Aut 1	Check Points Aut 2 Mechanisms	Check Points Spr 1 Textiles	Check Points Spr 2	Check Points Sum 1	Check Points Sum 2 Food and Nutrition
	<p><b>Knowledge</b> Know the input, process and output of a pulley. Know the function of a pulley. Know the parts of a pulley. Know that pulleys produce movement of heavy objects.</p> <p><b>Skills</b> Join, cut and manipulate materials. Build moveable products.</p>	<p><b>Knowledge</b> Know that you can design a product using CAD including seam allowance and annotation. Know how to make a complex pattern template considering shape detail.</p> <p>Know how to run, back and over-sew stitch.</p> <p><b>Skills</b></p>			<p><b>Knowledge</b> Know a variety of seasonal fruit and vegetables. Know what seasonality means. Know and demonstrate kitchen hygiene rules.</p> <p><b>Skills</b> Follow a recipe.</p>

		Make and use a complex paper template. Join fabrics together with different stitching.			
<b>END POINTS</b>					

Knowledge	Skills
<p><b>By the end of Year 5 pupils should:</b></p> <ul style="list-style-type: none"> <li>• know that materials have functional and aesthetic qualities</li> <li>• know that systems have an input, process and output</li> <li>• know how to program a computer to control and monitor their products</li> <li>• Know how to design a pattern using CAD.</li> <li>• Know how to cut, shape and manipulate materials.</li> <li>• Know a variety of joining and decorative techniques.</li> <li>• know that food is grown, reared and caught in the UK, Europe and the wider world</li> <li>• know that seasons may affect the food available</li> <li>• know how to prepare and cook a variety of dishes safely and hygienically using, where appropriate, a heat source</li> <li>• know that different food and drink contain nutrients, water and fibre that are needed for health.</li> </ul>	<p><b>By the end of Year 5 pupils should be able to:</b></p> <ul style="list-style-type: none"> <li>• carry out research; develop a simple design specification; describe the user, purpose and design features of their products and explain how they will work</li> <li>• generate innovative ideas drawing on research; use a range of drawing skills, discussion, prototypes, pattern pieces and computer-aided design.</li> <li>• formulate lists of resources and step-by-step plans; select suitable tools, equipment, materials and components and explain their choices</li> <li>• follow procedures for safety and hygiene; use a wider range of materials and components; measure, mark out, cut, shape, assemble, join, combine and finish with accuracy.</li> <li>• identify strengths and areas to develop in their ideas and products against their design specification; consider the views of others to make improvements.</li> <li>• investigate how well products have been designed and made, whether they are fit for purpose and meet user needs; why materials have been chosen, the methods of construction used, how well they work, and how innovative and sustainable they are.</li> <li>• know about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products.</li> </ul>

**YEAR 6**

Check Points Aut 1 Food and Nutrition	Check Points Aut 2	Check Points Spr 1	Check Points Spr 2 Electrical Systems	Check Points Sum 1 Structures	Check Points Sum 2
<p><b>Knowledge</b> Know a variety of cultural foods. Know the six key bread ingredients. Know a range of presentation techniques.</p> <p><b>Skills</b> Make bread. Follow a step by step recipe.</p>			<p><b>Knowledge</b> Know that mechanical and electrical systems have an input, process and an output. Know how to program, monitor and control their products. Know a range of finishing techniques.</p> <p><b>Skills</b> Create and modify a</p>	<p><b>Knowledge</b> Know a variety of 3D structures. Know how to join materials to create a stable structure. Know how to join a frame. Know a range of finishing techniques. Know how to cut, shape and join materials.</p> <p>Know the properties of</p>	

			computer control program to enable an electrical product to work automatically in response to changes in the environment.	materials. <b>Skills</b> Follow a step by step plan.	
<b>END POINTS</b>					

Knowledge	Skills
<p style="text-align: center;"><b>By the end of Year 6 pupils will:</b></p> <ul style="list-style-type: none"> <li>● know that materials have functional and aesthetic qualities</li> <li>● know that systems have an input, process and output</li> <li>● know how to program a computer to control and monitor their products</li> <li>● know how to reinforce and strengthen a framework</li> <li>● know to design a product fit for purpose.</li> <li>● know that food is grown, reared and caught in the UK, Europe and the wider world</li> <li>● know that seasons may affect the food available</li> <li>● know how food is processed into ingredients</li> <li>● know how to prepare and cook a variety of dishes safely and hygienically using, where appropriate, a heat source</li> <li>● know that different food and drink contain nutrients, water and fibre that are needed for health.</li> </ul>	<p style="text-align: center;"><b>By the end of Year 6 pupils should be able to:</b></p> <ul style="list-style-type: none"> <li>● carry out research; develop a simple design specification; describe the user, purpose and design features of their products and explain how they will work</li> <li>● generate innovative ideas drawing on research; use a range of drawing skills, discussion, prototypes, pattern pieces and computer-aided design.</li> <li>● formulate lists of resources and step-by-step plans; select suitable tools, equipment, materials and components and explain their choices</li> <li>● follow procedures for safety and hygiene; use a wider range of materials and components; measure, mark out, cut, shape, assemble, join, combine and finish with accuracy.</li> <li>● identify strengths and areas to develop in their ideas and products against their design specification; consider the views of others to make improvements.</li> <li>● investigate how well products have been designed and made, whether they are fit for purpose and meet user needs; why materials have been chosen, the methods of construction used, how well they work, and how innovative and sustainable they are.</li> <li>● know about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products.</li> </ul>