

## Design and Technology Long term planning grid

<b>Aims</b>	<ul style="list-style-type: none"> <li>- develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world</li> <li>- build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users</li> <li>- critique, evaluate and test their ideas and products and the work of others</li> <li>- understand and apply the principles of nutrition and learn how to cook.</li> </ul>				
<b>Cycle A</b>	<b>Class 1</b>	<b>Class 2</b>	<b>Class 3</b>	<b>Class 4</b>	<b>Class 5</b>
<b>Autumn</b>	<b>Food- Preparing fruit and vegetables (Projects on a page)</b> Fruit Cocktail	<b>Food – Preparing fruit and vegetables (Projects on a page)</b> Fruit Smoothies Story – Oliver’s fruit	<b>Structures/Pulleys or pneumatics instead of pulleys (Projects on a page)</b> Castles – bridges and draw bridges	<b>Food – Healthy and varied diet (Projects on a page)</b> Design and make sandwiches/wraps for Charlie’s celebration party . Combining ingredients	<b>Textiles: Combining different fabric shapes (Projects on a page)</b> Viking purses Include the CAD from projects on a page.
<b>Spring</b>	<b>Structures – Free standing structures (Projects on a page)</b> Make a strong house for The Three Little Pigs	<b>Structures - Free standing structures (Projects on a page)</b> Making chairs Goldilocks and the Three Bears.	<b>Food – Healthy and varied diet (Projects on a page)</b> Bread (design and make bread.) Combining ingredients	<b>Pneumatics (Projects on a page)</b> Explorers- make a moving creature they may see.	<b>Frame structures – (Projects on a page)</b> Animal hide/bird feeder?
<b>Summer</b>	<b>Textiles – Templates and joining (Projects on a page)</b> Design and make a jacket to keep Super Ted dry.	<b>Mechanisms - Wheels and axles (Projects on a page)</b>	<b>Textiles – 2D shape to 3D product (Projects on a page)</b> Embroidery, cross stitching	<b>Structures – Shell Structures (Projects on a page)</b> Treasure Box <ul style="list-style-type: none"> <li>• Nets</li> </ul>	<b>Food: Celebrating culture and seasonality (Projects on a page)</b> homemade pasta and homemade sauces
<b>Cycle B</b>	<b>Class 1</b>	<b>Class 2</b>	<b>Class 3</b>	<b>Class 4</b>	<b>Class 5</b>
<b>Autumn</b>	<b>Food – Preparing fruit and vegetables (Projects on a page)</b> Vegetable soup Vegetables for dips for a picnic.	<b>Food - Preparing fruit and vegetables (Projects on a page)</b> Vegetable soup Vegetables for dips Oliver’s vegetables	<b>Structures/Electrical systems (Projects on a page) – simple circuits and switches</b> Design and make an illuminated welcome sign.	<b>Food: Celebrating culture and seasonality (Projects on a page)</b> Food preparation skills including health and safety	<b>Food – celebrating culture and seasonality? (Projects on a page)</b> Greek foo – flat breads, tzatziki, Greek salad
<b>Spring</b>	<b>Mechanisms – sliders and levers (Projects on a page)</b> Animal Puppets	<b>Textiles – Templates and joining (Projects on a page)</b> Making bags Little Red Riding Hood	<b>Food - Healthy and varied diet (Projects on a page)</b> Flatbreads <b>Levers and Linkages –(Projects on a page)</b> Make a Shaduf.	<b>Structure – Frame Structures (Projects on a page)</b> towers for own exhibition Ski-lift - pulleys to link to Science	<b>Mechanisms CAMs – (Projects on a page)</b> Victorian toys.
<b>Summer</b>	<b>Structures - Free standing structures (Projects on a page)</b> Design and make a beach hut.	<b>Mechanisms – sliders and levers (Projects on a page)</b> Moving flames for The Great Fire of London scene. Moving parts on a plant/Moving basket in the story The Lighthouse Keeper’s lunch	<b>Mechanisms – pneumatics or shell structures (Projects on a page)</b> Moving skeletons Packaging for African masks	<b>Textiles- 2D shape to 3D product (Projects on a page)</b> design and make a ‘bag for life’ with gusset	<b>Pulleys and gears – moving toy (Projects on a page)</b> <b>Mechanisms, computer control –</b> Fairgrounds

EYFS	<p><b>Proposed ELG - Creating with Materials - Children at the expected level of development will:</b> - Draw and paint using a range of materials, tools and techniques, experimenting with colour, design, texture, form and function; - Share their creations, explaining the process they have used; - Make use of props and materials when role playing characters in narratives and stories.</p> <p><b>Proposed ELG – Managing self- Children at the expected level of development will;</b> .....develop an understanding the importance of healthy food choices.</p>	
	National Curriculum KS1	National Curriculum KS2
	<p><b>Design</b></p> <ul style="list-style-type: none"> <li>design purposeful, functional, appealing products for themselves and other users based on design criteria</li> <li>generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</li> </ul> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</li> <li>select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</li> </ul> <p><b>Evaluate</b></p> <ul style="list-style-type: none"> <li>explore and evaluate a range of existing products</li> <li>evaluate their ideas and products against design criteria</li> </ul> <p><b>Technical knowledge</b></p> <ul style="list-style-type: none"> <li>build structures, exploring how they can be made stronger, stiffer and more stable</li> <li>explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</li> </ul> <p><b>Cooking and nutrition</b></p> <ul style="list-style-type: none"> <li>use the basic principles of a healthy and varied diet to prepare dishes</li> <li>understand where food comes from.</li> </ul>	<p><b>Design</b></p> <ul style="list-style-type: none"> <li>use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups</li> <li>generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</li> </ul> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</li> <li>select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities</li> </ul> <p><b>Evaluate</b></p> <ul style="list-style-type: none"> <li>investigate and analyse a range of existing products</li> <li>evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</li> <li>understand how key events and individuals in design and technology have helped shape the world</li> </ul> <p><b>Technical knowledge</b></p> <ul style="list-style-type: none"> <li>apply their understanding of how to strengthen, stiffen and reinforce more complex structures</li> <li>understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</li> <li>understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]</li> <li>apply their understanding of computing to program, monitor and control their products.</li> </ul> <p><b>Cooking and nutrition</b></p> <ul style="list-style-type: none"> <li>understand and apply the principles of a healthy and varied diet</li> <li>prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</li> <li>understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</li> </ul>