

Design and Technology Long term planning grid

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

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