



Rotation A

Design Technology Long Term Plan

3 Class Scenario (September 2021 – July 2022)

	Autumn	Spring	Summer
YR/1	<p>Design, make and evaluate a structure linked to topic work or children's own interests.</p> <p><u>Year 1</u> With support, collaboratively</p> <ul style="list-style-type: none"> -Design purposeful, functional and appealing products based on design criteria -Generate, develop, model and communicate ideas in a variety of ways. -Make using a range of tools and equipment. -Select from a wide range of materials and components. -Explore and evaluate a range of existing products -Evaluate own ideas and products against the design criteria. -Build structures, exploring how that can be made stronger, stiffer and more stable. 	<p>Design, make and evaluate a product that has mechanisms, linked to topic work or children's own interests.</p> <p><u>Year 1</u> With support, collaboratively</p> <ul style="list-style-type: none"> -Design purposeful, functional and appealing products based on design criteria -Generate, develop, model and communicate ideas in a variety of ways. -Make using a range of tools and equipment. -Select from a wide range of materials and components. -Explore and evaluate a range of existing products -Evaluate own ideas and products against the design criteria. -Explore and use mechanisms, for example, levers, wheels, sliders and axles in products. 	<p>Preparing healthy snacks.</p> <p><u>Year 1</u> With support, collaboratively</p> <ul style="list-style-type: none"> -Use the basic principles of a healthy and varied diet to prepare a variety of healthy snacks. -Understand where food comes from.
Y2/3/4	<p>Design, make and evaluate a footbridge to go across the local railway line (structures).</p> <p><u>Year 2</u> -Design purposeful, functional and appealing products based on design criteria</p> <ul style="list-style-type: none"> -Generate, develop, model and communicate ideas in a variety of ways. -Make using a range of tools and equipment. -Select from a wide range of materials and components. -Explore and evaluate a range of existing products -Evaluate own ideas and products against the design criteria. -Build structures, exploring how that can be made stronger, stiffer and more stable. 	<p>Design, make and evaluate a product that has mechanisms, linked to History / Geography</p> <p><u>Year 2</u> -Design purposeful, functional and appealing products based on design criteria</p> <ul style="list-style-type: none"> -Generate, develop, model and communicate ideas in a variety of ways. -Make using a range of tools and equipment. -Select from a wide range of materials and components. -Explore and evaluate a range of existing products -Evaluate own ideas and products against the design criteria. -Explore and use mechanisms, for example, levers, wheels, sliders and axles in products. 	<p>Italian and / or Greek Food</p> <p><u>Year 2</u> -Use the basic principles of a healthy and varied diet to prepare a variety of Italian dishes. -Understand where food comes from.</p> <p><u>Year 3 & 4</u> -Understand and apply the principles of a healthy and varied diet by designing and making a complete Italian menu. -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.</p>

	<p><u>Year 3 & 4</u></p> <ul style="list-style-type: none"> -Use research and develop design criteria to inform the design of innovative, functional products fit for purpose. -Use annotated sketches, exploded diagrams and prototypes to communicate and develop designs. -Select from a wide range of tools and equipment. -Select from a wide range of materials and components. -Investigate and analyse a range of existing products -Evaluate against design criteria and consider the views of others to improve work. <p>Understand how key events and individuals in design technology have helped shape the world.</p> <ul style="list-style-type: none"> -Understand how to strengthen and reinforce more complex structures. 	<p><u>Year 3 & 4</u></p> <ul style="list-style-type: none"> -Use research and develop design criteria to inform the design of innovative, functional products fit for purpose. -Use annotated sketches, exploded diagrams and prototypes to communicate and develop designs. -Select from a wide range of tools and equipment. -Select from a wide range of materials and components. -Investigate and analyse a range of existing products -Evaluate against design criteria and consider the views of others to improve work. -Understand how key events and individuals in design technology have helped shape the world -Understand and use mechanical systems in their products, for example, gears, series circuits incorporating switches, bulbs, buzzers and motors. 	
<p>Y5/6</p>	<p>Experience food from another culture Prepare, cook, taste and reflect on comparisons to the food we eat in the UK.</p> <p><u>Year 5 & 6</u></p> <ul style="list-style-type: none"> -How to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source -How to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking <p>Design and create a model of a hillfort using natural resources. Work in teams to create the hill fort.</p> <p><u>Year 5 & 6</u></p>	<p>Making a Viking long boat. Test out on water and add weight to judge the suitability for a water attack.</p> <p><u>Year 5 & 6</u></p> <ul style="list-style-type: none"> -select from and use a wider range of tools and equipment to perform practical tasks [e.g. cutting, shaping, joining and finishing], accurately -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 -Draw up a specification for their design 	<p>Create a model of a British Fighter plane – link to history</p> <p><u>Year 5 & 6</u></p> <ul style="list-style-type: none"> -Generate innovative ideas, drawing on research -Make design decisions, taking account of constraints such as time, resources and cost -Develop prototypes -Critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make

	<ul style="list-style-type: none">-Know that materials have both functional properties and aesthetic qualities-Know that materials can be combined and mixed to create more useful characteristics-Select tools and equipment suitable for the task-Explain their choice of tools and equipment in relation to the skills and techniques they will be using-Select materials and components suitable for the task	<ul style="list-style-type: none">-Plan the order of their work, choosing appropriate materials, tools and techniques.	
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