

DT MEDIUM TERM PLAN (MTP) YEAR 5 2020: Taught 2nd Half of each term

DT MTP Y5	Autumn 2: 7 WEEKS	Spring 2: 6 WEEKS	Summer 2: 6 WEEKS
<p><i>Taken from the Year group curriculum map</i></p>	<p>Topic Title: Creative Cam</p> <p>Key knowledge: DT1/1.2b: To select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p> <p>DT1/1.2b: To select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</p> <p>DT2/1.2a: To select from and use a wider range of tools and equipment to perform practical tasks accurately</p> <p>DT2/1.1a: To 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.</p> <p>DT2/1.2b: To 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> <p>DT2/1.3b: To evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p> <p>Key Skills:</p> <ul style="list-style-type: none"> • Design a cam toy • Label the features. • Plan materials needed • Construction – Moving toy creation • Evaluate outcomes <p>Key vocabulary: Cam toy, materials, features, construct, measure, mechanism, object</p>	<p>Topic Title: Great Bread Bake Off (twinkl)</p> <p>Key knowledge: DT2/2.1a: To understand and apply the principles of a healthy and varied diet DT2/2.1b: To cook a repertoire of predominantly savoury dishes so that they are able to feed themselves and others a healthy and varied diet DT2/2.1c: To become competent in a range of cooking techniques [for example, selecting and preparing ingredients; using utensils and electrical equipment; applying heat in different ways; using awareness of taste, texture and smell to decide how to season dishes and combine ingredients; DT2/2.1c: To understand the source, seasonality and characteristics of a broad range of ingredients DT1/1.3b: To evaluate their ideas and products against design criteria</p> <p>Key Skills:</p> <ul style="list-style-type: none"> • Research bread • Annotate • Plan • Design • Make • Evaluate • Cooking and nutrition <p>Key vocabulary: Influence, Warburton, technology, product analysis, Shape, design, product, taste/smell, flavouring.</p>	<p>Topic Title: Marvellous Structures (twinkl)</p> <p>Key knowledge: DT2/1.4a: To apply their understanding of how to strengthen, stiffen and reinforce more complex structures DT2/1.4b: To understand and use mechanical systems in their products DT2/1.4c: To understand and use electrical systems in their products DT2/1.4d: To apply their understanding of computing to programme, monitor and control their products. DT2/1.1b To generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design DT2/1.1a: To 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 DT2/1.2b: To 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 DT2/1.3b: To evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</p> <p>Key Skills:</p> <ul style="list-style-type: none"> • Design • Make • Evaluate • Technological knowledge <p>Key vocabulary: Freestanding, structure, reinforce, equipment, design, plan, evaluate, materials, product, components.</p>

<p>1</p>	<p>Lesson objective: To explore historical and current moving toys</p> <p>Outline of tasks: To research moving toys</p> <ul style="list-style-type: none"> • How do they move • Who are they for (target audience) • Possibly look at toys from the past? 	<p>Lesson objective: To understand how key events and individuals in design and technology have helped shape the world</p> <p>Outline of tasks:</p> <ul style="list-style-type: none"> • Research Warburton’s timeline and influence 	<p>Lesson objective: To investigate and analyse a range of existing free standing structures.</p> <p>Outline of tasks:</p> <ul style="list-style-type: none"> • Children to explore freestanding structures
<p>2</p>	<p>Lesson objective: To be able to identify how different cams affect movement</p> <p>Outline of tasks: Show example of finished cam toy. Children to explore how different cams create different types of movement (introduce ‘follower’ and its role in moving toys)</p>	<p>Lesson objective: Investigate and analyse a range of existing products</p> <p>Outline of tasks:</p> <ul style="list-style-type: none"> • Hook: A national Warburton’s competition for new bread? • Children to taste different types of bread currently on the market • Children to complete ‘product analysis’ 	<p>Lesson objective: To understand how to strengthen, stiffen and reinforce more complex structures</p> <p>Outline of tasks:</p> <ul style="list-style-type: none"> • Children to work in groups to create their own free standing tower
<p>3</p>	<p>Lesson objective: To be able to design a cam toy</p> <p>Outline of tasks: Children design and label their own cams toy (related to myths and legends)</p>	<p>Lesson objective: To explore shape in the design of a new type of bread</p> <p>Outline of tasks:</p> <ul style="list-style-type: none"> • Children to work with salt dough to explore how to shape bread (buns and knots) 	<p>Lesson objective: To select from and use a wide range of tools and equipment to perform practical tasks</p> <p>Outline of tasks:</p> <ul style="list-style-type: none"> • Children to use materials to join tubes together to create a ‘marble run’

	<ul style="list-style-type: none"> • Children to decide on material/resources they will need. • They should also annotate the type of cam they will use according to the desired final movement. • Explore ways to strengthen cams frame 	<ul style="list-style-type: none"> • Children to decide on shape for their bread design 	<ul style="list-style-type: none"> • Children develop this further to include bridges
4	<p>Lesson objective: To create a moving toy using a cams mechanism</p> <p>Outline of tasks: Children to begin creating their cams mechanism</p> <ul style="list-style-type: none"> • Measuring and cutting wood for the frame • Marking out drill holes ready for next week 	<p>Lesson objective: To explore taste in the design of a new bread product</p> <p>Outline of tasks:</p> <ul style="list-style-type: none"> • Children taste and smell ingredients provided • Children make taste/smell combinations • Children decide on final flavouring for their bread 	<p>Lesson objective: To develop practical skills to help make bends in marble runs</p> <p>Outline of tasks:</p> <ul style="list-style-type: none"> • Children to add to their marble runs to it now includes bends
5	<p>Lesson objective: To create a moving toy using a cams mechanism</p> <p>Outline of tasks: Children to begin creating their cams mechanism</p> <ul style="list-style-type: none"> • Drilling holes into cams and frame 	<p>Lesson objective: To create a final design for a new bread product</p> <p>Outline of tasks:</p> <ul style="list-style-type: none"> • Children create their final design – using shape and taste choices from previous lessons • Children identify on equipment and ingredients they will need 	<p>Lesson objective: To investigate commercially bought marble runs.</p> <p>Outline of tasks:</p> <ul style="list-style-type: none"> • Children to carousel around the marble runs and time each 'run' • Children to identify why some take longer than others

	<ul style="list-style-type: none"> • Piece sections/frame together • Strengthen where necessary 		<ul style="list-style-type: none"> • Children to develop their run to include obstacles
6	<p>Lesson objective: To create a moving toy using a cams mechanism</p> <p>Outline of tasks: Children to complete their mechanism frame and start on the background and moving object</p>	<p>Lesson objective: To making and evaluate a new bread product (<i>will require comprehension time too</i>)</p> <p>Outline of tasks:</p> <ul style="list-style-type: none"> • Children make their final product (before lunch) • Children taste and evaluate new bread in afternoon 	<p>Lesson objective: To be able to select and use materials and components to make a marble run</p> <p>Outline of tasks:</p> <ul style="list-style-type: none"> • Children design their final marble run and begin making it
7	<p>Lesson objective: To create a moving toy using a cams mechanism</p> <p>Outline of tasks: Children complete finishing touches to their CAMs</p>		<p>Lesson objective: To evaluate the marble run against the design criteria set in previous lesson</p> <p>Outline of tasks:</p> <ul style="list-style-type: none"> • Children star and a wish each other's marble run • Children go back to their own run and make improvements based on peer evaluations • Children test their marble runs

8	Lesson objective: To be able to evaluate the effectiveness of the toy CAMs Outline of tasks: Children evaluate their own and each other's cams (based on design and movement)					
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