



Curriculum Design & Technology - Whole School

CARE **ACHIEVE** **BELIEVE**





Curriculum Design & Technology Rationale

CARE ACHIEVE BELIEVE

We aim to provide children with a DT education that is relevant in our rapidly changing world and a curriculum that embodies our school intent: we intend to provide a wide range of inclusive opportunities, that ensure our children have a secure body of knowledge and effective critical thinking skills, which enable them to lead life with the highest of aspirations and contribute to life in modern Britain and the global community. Through our design and technology curriculum we aspire for our children to be unusually brave and think critically. We aim to provide opportunities for children to discover what is possible through designing and making innovative products. We strive to push the limits and ask children to use their research to design and make innovative, creative products and want our children to be problems solvers. Through our DT curriculum we ensure that children will have opportunities to work with a wide range of mediums: textiles, food, woodwork and mechanisms. We have a knowledge rich scheme of work guided by the National Curriculum.

<p>Intent:</p>	<p>The DT curriculum is ambitious in the range of skills and techniques delivered. Children will develop a broad skillset with journal work being a continuous thread used in all year groups. Children will also develop the vocabulary to critique DT and use technical terminology with confidence when talking about their own work, the work produced by peers and the work of established people.</p> <p>Our DT curriculum is a spiral curriculum. Skills are revisited and the use of ongoing journal work underpins all the content.</p> <p>A key principle of our teaching is about belief that every child can engage with DT. The resources used in school are suitable for pupils of all abilities. A range of artists and designers are introduced to our children.</p>
<p>Implementation:</p>	<p>DT lessons begin with a critical thinking question. This aims to get children thinking about the topic and skills they will be covering as well as introducing any new/key vocabulary. This will be followed by a skill based warm up activity. The purpose of this is to revisit and apply previously taught skills. The role of the teacher is to introduce key skills, materials and ideas but ultimately allow children to explore their own creativity.</p> <p>The progression plan includes critical thinking questions to ignite reflective discussion during each lesson. The questions aim to promote dialogue about the success of the focus skills, possible ideas for further improvement and opportunities for children to reflection the materials and techniques used.</p> <p>The progression plan includes core knowledge and skill development for each year group. Key technical terminology is taught in context. Assessment questions provide teachers with an indicator of pupil confidence. DT floor books evidence progression of skills in all year groups.</p>
<p>Impact:</p>	<p>The approach to assessment is less formal than in core subject disciplines. In DT, there is ongoing teacher assessment to ensure that the children are keeping up with the pace of the curriculum and achieving our goals. We assess at the end of the Foundation Stage against the Early Learning Goal for Expressive Arts and Design. There is no published data for art and design in KS1 and KS2. The school tracks foundation subjects very broadly to ensure that children are working within the curriculum expectations for their year group.</p> <p>Floor books are key to capturing pupil work. Additionally, homework/pupil work is displayed in communal areas as a wider public display of DT work is a critical part in the design process. Talking to pupils is key to the continual refinement and development of the DT curriculum. Regular pupil voice conferences provide valuable feedback which is used to assess pupil's understanding and the success of units of work.</p>



Curriculum Map

Design & Technology - EYFS

EYFS

	Autumn 1 Refer to Art & Design Curriculum	Autumn 2	Spring 1 Refer to Art & Design Curriculum	Spring 2	Summer 1 Refer to Art & Design Curriculum	Summer 2
EYFS		<p>Mechanisms Making an emergency vehicle based on the theme 'People who help us' topic.</p> <p>Junk modelling each term</p>		<p>Structures Using natural materials to make bug houses to link in with the minibeast theme.</p> <p>Junk modelling each term</p>		<p>Food Making fruit kebabs and fruit smoothies links to healthy eating and PSED curriculum.</p> <p>Junk modelling each term</p>



Curriculum Map

Design & Technology - Whole School

Cycle A

	Autumn 1 Refer to Art & Design Curriculum	Autumn 2	Spring 1 Refer to Art & Design Curriculum	Spring 2	Summer 1 Refer to Art & Design Curriculum	Summer 2
KS1 Yr1/2		Structures Free standing structures		Mechanisms Sliders and Leavers		Food Preparing fruit and vegetables (inc. cooking and nutrition requirements for KS1)
LKS2 Yr3/4		Mechanical Systems Pneumatics		Food Health and varied diet (inc. cooking and nutrition requirements for KS2)		Structures Shell structures using computer-aided design.
UKS2 Yr5/6		Electrical Systems Monitoring and Control		Food Celebrating culture and seasonality (inc. cooking and nutrition requirements for KS2)		Mechanical systems Cams



Curriculum Map

Art & Design - Whole School

Cycle B

	Autumn 1 Refer to Art & Design Curriculum	Autumn 2	Spring 1 Refer to Art & Design Curriculum	Spring 2	Summer 1 Refer to Art & Design Curriculum	Summer 2
KS1 Yr1/2		Mechanics Wheels and Axies		Food Preparing fruit and vegetables (inc. cooking and nutrition requirements for KS1)		Textiles Templates and joining techniques
LKS2 Yr3/4		Textiles 2D to 3D product		Electrical Systems Simple programming and Control		Food Health and varied diet (inc. cooking and nutrition requirements for KS2)
UKS2 Yr5/6		Food Celebrating culture and seasonality (inc. cooking and nutrition requirements for KS2)		Textiles Using computer-aided design in textiles		Structures Frame Structures



Curriculum Map

Design & Technology - Overview KS1

Cycle A

<p style="text-align: center;">Autumn 2 - Structures (Freestanding)</p> <p style="text-align: center;">Composite: To make a free-structure for a garden.</p>	<p style="text-align: center;">Spring 2 - Mechanisms (Sliders & Levers)</p> <p style="text-align: center;">Composite: To make a greeting card with sliders and levers.</p>	<p style="text-align: center;">Summer 2 - Food (Preparing Fruit & Veg)</p> <p style="text-align: center;">Composite: To make a fruit and savoury salad for summer.</p>																								
<p style="text-align: center;">Components</p> <p>Designing</p> <ul style="list-style-type: none"> • Know how to generate ideas based on a simple design criteria and their own experiences. • Know how to develop, model and communicate their ideas through talking. <p>Making</p> <ul style="list-style-type: none"> • Know how to plan what to do next. • Know how to select and use tools, skills and techniques, explaining their choices. • Know how to use construction kits to build their structure. • Know how to use simple finishing techniques for the structure they are creating. <p>Evaluating</p> <ul style="list-style-type: none"> • Know how to explore a range of existing freestanding structures in school and the local environment. • Know how to evaluate their product by discussing how well it works in relation to its purpose, the user and whether it meets the original design criteria. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Know how to make freestanding structures stronger, stiffer and more stable. 	<p style="text-align: center;">Components</p> <p>Designing</p> <ul style="list-style-type: none"> • Know how to generate ideas based on simple design criteria and their own experiences, explaining what they could make. • Know how to develop, model and communicate their ideas through drawings and mock-ups with card and paper. <p>Making</p> <ul style="list-style-type: none"> • Know how to plan by suggesting what to do next. • Know how to select and use tools, explaining their choices, to cut, shape and join paper and card. • Know how to use simple finishing techniques suitable for the product they are creating. <p>Evaluating</p> <ul style="list-style-type: none"> • Know how to evaluate their product by discussing how well it works in relation to the purpose and the user and whether it meets design criteria. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Know how to explore and use sliders and levers. • Know that different mechanisms produce different types of movement. • Know and use technical vocabulary relevant to the project. 	<p style="text-align: center;">Components</p> <p>Designing</p> <ul style="list-style-type: none"> • Know how to design appealing products for a particular user based on simple design criteria. • Know how to generate initial ideas and design criteria through investigating a variety of fruit and vegetables. • Know how to communicate these ideas through talk and drawings. <p>Making</p> <ul style="list-style-type: none"> • Know how to use simple utensils and equipment to e.g. peel, cut, slice, squeeze, grate and chop safely. • Know how to select from a range of fruit and vegetables according to their characteristics e.g. colour, texture and taste to create a chosen product. <p>Evaluating</p> <ul style="list-style-type: none"> • Know how to taste and evaluate a range of fruit and vegetables to determine the intended user's preferences. • Know how to evaluate ideas and finished products against design criteria, including intended user and purpose. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Know how to understand where a range of fruit and vegetables come from e.g. farmed or grown at home. • Understand and use basic principles of a healthy and varied diet to prepare dishes, including how fruit and vegetables are part of The Eatwell Guide. • Know and use technical and sensory vocabulary relevant to the project. 																								
<p>Key Vocabulary:</p> <table style="width: 100%; border: none;"> <tr> <td>Structure</td> <td>Base</td> </tr> <tr> <td>Hollow</td> <td>Support</td> </tr> <tr> <td>Freestanding</td> <td>Prototype</td> </tr> <tr> <td>Wall</td> <td></td> </tr> <tr> <td>Pattern</td> <td></td> </tr> <tr> <td>Fix</td> <td></td> </tr> </table>	Structure	Base	Hollow	Support	Freestanding	Prototype	Wall		Pattern		Fix		<p>Key Vocabulary:</p> <ul style="list-style-type: none"> Mechanism Slider Lever Slot Movement Rotate 	<p>Key Vocabulary:</p> <table style="width: 100%; border: none;"> <tr> <td>Investigate</td> <td>Peel</td> </tr> <tr> <td>Fruit</td> <td>Combine</td> </tr> <tr> <td>Vegetables</td> <td></td> </tr> <tr> <td>Evaluate</td> <td></td> </tr> <tr> <td>Prepare</td> <td></td> </tr> <tr> <td>Cut</td> <td></td> </tr> </table>	Investigate	Peel	Fruit	Combine	Vegetables		Evaluate		Prepare		Cut	
Structure	Base																									
Hollow	Support																									
Freestanding	Prototype																									
Wall																										
Pattern																										
Fix																										
Investigate	Peel																									
Fruit	Combine																									
Vegetables																										
Evaluate																										
Prepare																										
Cut																										



Curriculum Map

Design & Technology - Overview KS1

Cycle B

<p style="text-align: center;">Autumn 2 - Mechanisms (Wheels & Axles)</p> <p style="text-align: center;">Composite: To make an emergency vehicle</p>	<p style="text-align: center;">Spring 2 - Food (Preparing Fruit & Veg)</p> <p style="text-align: center;">Composite: To make a perfect pizza</p>	<p style="text-align: center;">Summer 2 - Textiles (Templates & Joining Technique)</p> <p style="text-align: center;">Composite: To make a hand puppet</p>
<p style="text-align: center;">Components</p> <p>Designing</p> <ul style="list-style-type: none"> • Know how to generate initial ideas and simple design criteria through talking and using own experiences. • Know how to develop and communicate ideas through drawings and mock-ups. <p>Making</p> <ul style="list-style-type: none"> • Know how to select from and use a range of tools and equipment to perform practical tasks such as cutting and joining to allow movement and finishing. • Know how to select from and use a range of materials and components such as paper, card, plastic and wood according to their characteristics. <p>Evaluating</p> <ul style="list-style-type: none"> • Know how to explore and evaluate a range of products with wheels and axles. • Know how to evaluate their ideas throughout and their products against original criteria. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Know how to explore and use wheels, axles and axle holders. • Know how to distinguish between fixed and freely moving axles. • Know and use technical vocabulary relevant to the project. 	<p style="text-align: center;">Components</p> <p>Designing</p> <ul style="list-style-type: none"> • Know how to design appealing products for a particular user based on simple design criteria. • Know how to generate initial ideas and design criteria through investigating a variety of fruit and vegetables. • Know how to communicate these ideas through talk and drawings. <p>Making</p> <ul style="list-style-type: none"> • Know how to use simple utensils and equipment to e.g. peel, cut, slice, squeeze, grate and chop safely. • Know how to select from a range of fruit and vegetables according to their characteristics e.g. colour, texture and taste to create a chosen product. <p>Evaluating</p> <ul style="list-style-type: none"> • Know how to taste and evaluate a range of fruit and vegetables to determine the intended user's preferences. • Know how to evaluate ideas and finished products against design criteria, including intended user and purpose. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Understand where a range of fruit and vegetables come from e.g. farmed or grown at home. • Know how to use basic principles of a healthy and varied diet to prepare dishes, including how fruit and vegetables are part of The Eatwell Guide. • Know and use technical and sensory vocabulary relevant to the project 	<p style="text-align: center;">Components</p> <p>Designing</p> <ul style="list-style-type: none"> • Know how to design a functional and appealing product for a chosen user and purpose based on simple design criteria. • Know how to generate, develop, model and communicate their ideas as appropriate through talking, drawing, templates, mock-ups and information and communication technology. <p>Making</p> <ul style="list-style-type: none"> • Know how to select from and use a range of tools and equipment to perform practical tasks such as marking out, cutting, joining and finishing. • Know how to select from and use textiles according to their characteristics. <p>Evaluating</p> <ul style="list-style-type: none"> • Know how to explore and evaluate a range of existing textile products relevant to the project being undertaken. • Know how to evaluate their ideas throughout and their final products against original design criteria. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Understand how simple 3-D textile products are made, using a template to create two identical shapes. • Understand how to join fabrics using different techniques e.g. running stitch, glue, over stitch, stapling. • Know how to explore different finishing techniques e.g. using painting, fabric crayons, stitching, sequins, buttons and ribbons. • Know and use technical vocabulary relevant to the project.
<p>Key Vocabulary:</p> <p>Wheels Techniques Axles Evaluate Combine Chassis Materials Tools</p>	<p>Key Vocabulary:</p> <p>Cut Ingredients Chop Toppings Combine Bake Base Healthy</p>	<p>Key Vocabulary:</p> <p>Template Cotton Sew Needle Staple Mock-up Running Stitch Fabric</p>



Curriculum Map

Design & Technology - Overview LKS2

Cycle A

Autumn 2 - Mechanical Systems (Pneumatics) Composite: To make a moving monster	Spring 2 - Food (Healthy & Varied Diet) Composite: To make a healthy lunchbox snack	Summer 2 - Structures (Shell Structures) Composite: To make a mini greenhouse
<p style="text-align: center;">Components</p> <p>Designing</p> <ul style="list-style-type: none"> • Know how to generate realistic and appropriate ideas and their own design criteria through discussion, focusing on the needs of the user. • Know how to use annotated sketches and prototypes to develop, model and communicate ideas. <p>Making</p> <ul style="list-style-type: none"> • Know how to order the main stages of making. • Know how to select from and use appropriate tools with some accuracy to cut and join materials and components such as tubing, syringes and balloons. • Know how to select from and use finishing techniques suitable for the product they are creating. <p>Evaluating</p> <ul style="list-style-type: none"> • Know how to investigate and analyse books, videos and products with pneumatic mechanisms. • Know how to evaluate their own products and ideas against criteria and user needs, as they design and make. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Understand and use pneumatic mechanisms. • Know and use technical vocabulary relevant to the project. 	<p style="text-align: center;">Components</p> <p>Designing</p> <ul style="list-style-type: none"> • Know how to generate and clarify ideas through discussion with peers and adults to develop design criteria including appearance, taste, texture and aroma for an appealing product for a particular user and purpose. • Know how to use annotated sketches and appropriate information and communication technology, such as web-based recipes, to develop and communicate ideas. <p>Making</p> <ul style="list-style-type: none"> • Know how to plan the main stages of a recipe, listing ingredients, utensils and equipment. • Know how to select and use appropriate utensils and equipment to prepare and combine ingredients. • Know how to select from a range of ingredients to make appropriate food products, thinking about sensory characteristics. <p>Evaluating</p> <ul style="list-style-type: none"> • Know how to carry out sensory evaluations of a variety of ingredients and products. Record the evaluations using e.g. tables and simple graphs. • Know how to evaluate the ongoing work and the final product with reference to the design criteria and the views of others. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Know how to use appropriate equipment and utensils to prepare and combine food. • Know about a range of fresh and processed ingredients appropriate for their product, and whether they are grown, reared or caught. • Know and use relevant technical and sensory vocabulary appropriately 	<p style="text-align: center;">Components</p> <p>Designing</p> <p>Know how to generate realistic ideas and design criteria collaboratively through discussion, focusing on the needs of the user and the functional and aesthetic purposes of the product.</p> <ul style="list-style-type: none"> • Know how to develop ideas through the analysis of existing shell structures and use computer-aided design to model and communicate ideas. <p>Making</p> <ul style="list-style-type: none"> • Know how to plan the order of the main stages of making. • Know how to select and use appropriate tools and software to measure, mark out, cut, score, shape and assemble with some accuracy. • Know how to explain their choice of materials according to functional properties and aesthetic qualities. • Know how to use computer-generated finishing techniques suitable for the product they are creating. <p>Evaluating</p> <ul style="list-style-type: none"> • Know how to investigate and evaluate a range of shell structures including the materials, components and techniques that have been used. • Know how to test and evaluate their own products against design criteria and the intended user and purpose. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Develop and use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes. • Develop and use knowledge of how to construct strong, stiff shell structures. • Know and use technical vocabulary relevant to the project.
<p>Key Vocabulary:</p> <p>Pneumatics Techniques Systems Tools Air Movements Materials Components</p>	<p>Key Vocabulary:</p> <p>Syrup Combine Healthy Ingredients Nuts/Seeds Oats</p>	<p>Key Vocabulary:</p> <p>Greenhouse Joins Frame Techniques Structure Stable Materials Tools</p>



Curriculum Map

Design & Technology - Overview LKS2

Cycle B

<p style="text-align: center;">Autumn 2 - Textiles (2D shape to 3D product) Composite: To make a pencil case from fabrics</p>	<p style="text-align: center;">Spring 2 - Electrical Systems (Simple programming and control) Composite: To make a light-up sign</p>	<p style="text-align: center;">Summer 2 - Food (Healthy and varied diet) Composite: To make a seasonal dish</p>
<p style="text-align: center;">Components</p> <p>Designing</p> <ul style="list-style-type: none"> • Know how to generate realistic ideas through discussion and design criteria for an appealing, functional product fit for purpose and specific user/s. • Know how to produce annotated sketches, prototypes, final product sketches and pattern pieces. <p>Making</p> <ul style="list-style-type: none"> • Know how to plan the main stages of making. • Know how to select and use a range of appropriate tools with some accuracy e.g. cutting, joining and finishing. • Know how to select fabrics and fastenings according to their functional characteristics e.g. strength, and aesthetic qualities e.g. pattern. <p>Evaluating</p> <ul style="list-style-type: none"> • Know how to investigate a range of 3-D textile products relevant to the project. • Know how to test their product against the original design criteria and with the intended user. • Know how to take into account others' views. • Understand how a key event/individual has influenced the development of the chosen product and/or fabric. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Know how to strengthen, stiffen and reinforce existing fabrics. • Understand how to securely join two pieces of fabric together. • Understand the need for patterns and seam allowances. • Know and use technical vocabulary relevant to the project. 	<p style="text-align: center;">Components</p> <p>Designing</p> <ul style="list-style-type: none"> • Know how to gather information about users' needs and wants, and develop design criteria to inform the design of products that are fit for purpose. • Know how to generate, develop, model and communicate realistic ideas through discussion and, as appropriate, annotated sketches, cross-sectional and exploded diagrams. <p>Making</p> <ul style="list-style-type: none"> • Know how to order the main stages of making. • Know how to select from and use tools and equipment to cut, shape, join and finish with some accuracy. • Know how to connect simple electrical components and a battery in a series circuit to achieve a functional outcome. • Know how to program a standalone control box, microcontroller or interface box to enhance the way the product works. <p>Evaluating</p> <ul style="list-style-type: none"> • Know how to investigate and analyse a range of existing battery-powered products, including pre-programmed and programmable products. • Know how to evaluate their ideas and products against their own design criteria and identify the strengths and areas for improvement in their work. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Understand and use computing to program and control products containing electrical systems, such as series circuits incorporating switches, bulbs and buzzers. • Know and use technical vocabulary relevant to the project. 	<p style="text-align: center;">Components</p> <p>Designing</p> <ul style="list-style-type: none"> • Know how to generate and clarify ideas through discussion with peers and adults to develop design criteria including appearance, taste, texture and aroma for an appealing product for a particular user and purpose. • Know how to use annotated sketches and appropriate information and communication technology, such as web-based recipes, to develop and communicate ideas. <p>Making</p> <ul style="list-style-type: none"> • Know how to plan the main stages of a recipe, listing ingredients, utensils and equipment. • Know how to select and use appropriate utensils and equipment to prepare and combine ingredients. • Know how to select from a range of ingredients to make appropriate food products, thinking about sensory characteristics. <p>Evaluating</p> <ul style="list-style-type: none"> • Know how to carry out sensory evaluations of a variety of ingredients and products. Record the evaluations using e.g. tables and simple graphs. • Know how to evaluate the ongoing work and the final product with reference to the design criteria and the views of others. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Know how to use appropriate equipment and utensils to prepare and combine food. • Know about a range of fresh and processed ingredients appropriate for their product, and whether they are grown, reared or caught. • Know and use relevant technical and sensory vocabulary appropriately
<p>Key Vocabulary:</p> <p>Template Cotton Sew Needle Staple Mock-up</p>	<p>Key Vocabulary:</p> <p>Circuit Electrical systems Functions Components Programmable</p>	<p>Key Vocabulary:</p> <p>Cut Ingredients Chop Toppings Combine Bake</p>



Curriculum Map

Design & Technology - Overview UKS2

Cycle A

<p style="text-align: center;">Autumn 2 - Electrical Systems (Monitoring & Control)</p> <p style="text-align: center;">Composite: To make a light-up Christmas card</p>	<p style="text-align: center;">Spring 2 - Food (Celebrating culture and seasonality)</p> <p style="text-align: center;">Composite: To make a traditional Spanish dish</p>	<p style="text-align: center;">Summer 2 - Mechanical Systems (Cams)</p> <p style="text-align: center;">Composite: To make a moving toy</p>																												
<p style="text-align: center;">Components</p> <p>Designing</p> <ul style="list-style-type: none"> • Know how to develop a design specification for a functional product that responds automatically to changes in the environment. • Know how to generate, develop and communicate ideas through discussion, annotated sketches and pictorial representations of electrical circuits or circuit diagrams. <p>Making</p> <ul style="list-style-type: none"> • Know how to formulate a step-by-step plan to guide making, listing tools, equipment, materials and components. • Know how to competently select and accurately assemble materials, and securely connect electrical components to produce a reliable, functional product. • Know how to create and modify a computer control program to enable their electrical product to respond to changes in the environment. <p>Evaluating</p> <ul style="list-style-type: none"> • Know how to continually evaluate and modify the working features of the product to match the initial design specification. • Know how to test the system to demonstrate its effectiveness for the intended user and purpose. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Understand and use electrical systems in their products. • Understand the use of computer control systems in products. • Know how to apply their understanding of computing to program, monitor and control their products. • Know and use technical vocabulary relevant to the project. 	<p style="text-align: center;">Components</p> <p>Designing</p> <ul style="list-style-type: none"> • Know how to generate innovative ideas through research and discussion with peers and adults to develop a design brief and criteria for a design specification. • Know how to explore a range of initial ideas, and make design decisions to develop a final product linked to user and purpose. • Know how to use words, annotated sketches and information and communication technology as appropriate to develop and communicate ideas. <p>Making</p> <ul style="list-style-type: none"> • Know how to write a step-by-step recipe, including a list of ingredients, equipment and utensils • Know how to select and use appropriate utensils and equipment accurately to measure and combine appropriate ingredients. • Know how to make, decorate and present the food product appropriately for the intended user and purpose. <p>Evaluating</p> <ul style="list-style-type: none"> • Know how to carry out sensory evaluations of a range of relevant products and ingredients. Record the evaluations using e.g. tables/graphs/charts such as star diagrams. • Know how to evaluate the final product with reference back to the design brief and design specification, taking into account the views of others when identifying improvements. • Understand how key chefs have influenced eating habits to promote varied and healthy diets. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Know how to use utensils and equipment including heat sources to prepare and cook food. • Understand about seasonality in relation to food products and the source of different food products. • Know and use relevant technical and sensory vocabulary. 	<p style="text-align: center;">Components</p> <p>Designing</p> <ul style="list-style-type: none"> • Know how to generate innovative ideas by carrying out research using surveys, interviews, questionnaires and web-based resources. • Develop a simple design specification to guide their thinking. • Develop and communicate ideas through discussion, annotated drawings, exploded drawings and drawings from different views. <p>Making</p> <ul style="list-style-type: none"> • Know how to produce detailed lists of tools, equipment and materials. Formulate step-by-step plans and, if appropriate, allocate tasks within a team. • Know how to select from and use a range of tools and equipment to make products that are accurately assembled and well finished. Work within the constraints of time, resources and cost. <p>Evaluating</p> <ul style="list-style-type: none"> • Know how to compare the final product to the original design specification. • Know how to test products with the intended user, where safe and practical, and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose. • Know how to consider the views of others to improve their work. • Know how to investigate famous manufacturing and engineering companies relevant to the project. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Understand that mechanical systems have an input, process and an output. • Understand how cams can be used to produce different types of movement and change the direction of movement. • Know and use technical vocabulary relevant to the project. 																												
<p>Key Vocabulary:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Circuit</td> <td style="width: 50%;">Materials</td> </tr> <tr> <td>Electrical systems</td> <td>Monitoring</td> </tr> <tr> <td>Functions</td> <td>Modify</td> </tr> <tr> <td>Components</td> <td></td> </tr> <tr> <td>Tools</td> <td></td> </tr> </table>	Circuit	Materials	Electrical systems	Monitoring	Functions	Modify	Components		Tools		<p>Key Vocabulary:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Cut</td> <td style="width: 50%;">Ingredients</td> </tr> <tr> <td>Chop</td> <td>Toppings</td> </tr> <tr> <td>Combine</td> <td></td> </tr> <tr> <td>Bake</td> <td></td> </tr> </table>	Cut	Ingredients	Chop	Toppings	Combine		Bake		<p>Key Vocabulary:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Mechanisms</td> <td style="width: 50%;"></td> </tr> <tr> <td>CAMS</td> <td></td> </tr> <tr> <td>Dowling</td> <td></td> </tr> <tr> <td>Materials</td> <td></td> </tr> <tr> <td>Tools</td> <td></td> </tr> </table>	Mechanisms		CAMS		Dowling		Materials		Tools	
Circuit	Materials																													
Electrical systems	Monitoring																													
Functions	Modify																													
Components																														
Tools																														
Cut	Ingredients																													
Chop	Toppings																													
Combine																														
Bake																														
Mechanisms																														
CAMS																														
Dowling																														
Materials																														
Tools																														



Curriculum Map

Design & Technology - Overview UKS2

Cycle B

<p style="text-align: center;">Autumn 2 - Food (Celebrating culture and seasonality) Composite: To make traditional Christmas desserts</p>	<p style="text-align: center;">Spring 2 - Textiles (2D to 3D shapes) Composite: To make a fabric phone holder</p>	<p style="text-align: center;">Summer 2 - Structures (Frame Structures) Composite: To make a bird house for a garden</p>
<p style="text-align: center;">Components</p> <p>Designing</p> <ul style="list-style-type: none"> • Know how to generate innovative ideas through research and discussion with peers and adults to develop a design brief and criteria for a design specification. • Know how to explore a range of initial ideas, and make design decisions to develop a final product linked to user and purpose. • Know how to use words, annotated sketches and information and communication technology as appropriate to develop and communicate ideas. <p>Making</p> <ul style="list-style-type: none"> • Know how to write a step-by-step recipe, including a list of ingredients, equipment and utensils • Know how to select and use appropriate utensils and equipment accurately to measure and combine appropriate ingredients. • Know how to make, decorate and present the food product appropriately for the intended user and purpose. <p>Evaluating</p> <ul style="list-style-type: none"> • Know how to carry out sensory evaluations of a range of relevant products and ingredients. Record the evaluations using e.g. tables/graphs/charts such as star diagrams. • Know how to evaluate the final product with reference back to the design brief and design specification, taking into account the views of others when identifying improvements. • Understand how key chefs have influenced eating habits to promote varied and healthy diets. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Know how to use utensils and equipment including heat sources to prepare and cook food. • Understand about seasonality in relation to food products and the source of different food products. • Know and use relevant technical and sensory vocabulary. 	<p style="text-align: center;">Components</p> <p>Designing</p> <ul style="list-style-type: none"> • Know how to generate innovative ideas by carrying out research using surveys, interviews, questionnaires and web-based resources. • Know how to develop a simple design specification to guide their thinking. • Know how to develop and communicate ideas through discussion, annotated drawings, exploded drawings and drawings from different views. <p>Making</p> <ul style="list-style-type: none"> • Know how to produce detailed lists of tools, equipment and materials. Formulate step-by-step plans and, if appropriate, allocate tasks within a team. • Know how to select from and use a range of tools and equipment to make products that are accurately assembled and well finished. Work within the constraints of time, resources and cost. <p>Evaluating</p> <ul style="list-style-type: none"> • Know how to compare the final product to the original design specification. • Know how to test products with the intended user, where safe and practical, and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose. • Consider the views of others to improve their work. • Investigate famous manufacturing and engineering companies relevant to the project. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Understand that mechanical systems have an input, process and an output. • Understand how cams can be used to produce different types of movement and change the direction of movement. • Know and use technical vocabulary relevant to the project. 	<p style="text-align: center;">Components</p> <p>Designing</p> <ul style="list-style-type: none"> • Know how to carry out research into user needs and existing products, using surveys, interviews, questionnaires and web-based resources. • Know how to develop a simple design specification to guide the development of their ideas and products, taking account of constraints including time, resources and cost. • Know how to generate, develop and model innovative ideas, through discussion, prototypes and annotated sketches. <p>Making</p> <ul style="list-style-type: none"> • Know how to formulate a clear plan, including a step-by-step list of what needs to be done and lists of resources to be used. • Know how to competently select from and use appropriate tools to accurately measure, mark out, cut, shape and join construction materials to make frameworks. • Use finishing and decorative techniques suitable for the product they are designing and making. <p>Evaluating</p> <ul style="list-style-type: none"> • Know how to investigate and evaluate a range of existing frame structures. • Critically evaluate their products against their design specification, intended user and purpose, identifying strengths and areas for development, and carrying out appropriate tests. • Know how to research key events and individuals relevant to frame structures. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Understand how to strengthen, stiffen and reinforce 3-D frameworks. • Know and use technical vocabulary relevant to the project.
<p>Key Vocabulary:</p> <p>Cut Ingredients Chop Toppings Combine Bake</p>	<p>Key Vocabulary:</p> <p>Template Cotton Sew Needle Staple Running Stitch Mock-up Fabric</p>	<p>Key Vocabulary:</p> <p>Bird house Joins Frame Techniques Structure Tools Stable Materials</p>