

DT Curriculum Map

EYFS Nursery	<p><u>Personal Social and Emotional Development</u> Select and use activities and resources, with help when needed. This helps them to achieve a goal they have chosen or one which is suggested to them.</p> <p><u>Understanding the World</u> Explore how things work.</p> <p><u>Physical Development</u> Choose the right resources to carry out their own plan. Use one-handed tools and equipment, for example, making snips in paper with scissors.</p> <p><u>Expressive Arts and Design</u> Make imaginative and complex ‘small worlds’ with blocks and construction kits, such as a city with different buildings and a park. Explore different materials freely, in order to develop their ideas about how to use them and what to make. Develop their own ideas and then decide which materials to use to express them.</p>
EYFS Reception	<p><u>Physical Development</u> Develop their small motor skills so that they can use a range of tools competently, safely and confidently. Use a range of small tools, including scissors, paintbrushes and cutlery.</p> <p><u>Expressive Arts and Design</u> Return to and build on their previous learning, refining ideas and developing their ability to represent them. Create collaboratively, sharing ideas, resources and skills. Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. Share their creations, explaining the process they have used.</p>

	Structures	Mechanical Systems	Electrical Systems	Textiles	Cooking & Nutrition
KS1 Year 1		<p>Sliders and levers Generating, modelling and communicating ideas.</p> <p>Planning making, selecting tools and using finishing techniques.</p> <p>Exploring books and products; evaluating own product against original criteria.</p> <p>Exploring sliders and levers; understanding types of movement; technical vocabulary.</p>		<p>Templates and joining techniques Design a functional, appealing product for a chosen user and purpose.</p> <p>Generate, develop, and communicate ideas.</p> <p>Use a range of textiles, tools and equipment to perform practical tasks.</p> <p>Explore and evaluate existing textile products and their own ideas and products.</p> <p>Understand how 3-D textile products are made, using joining, templates and finishing to create two identical shapes.</p>	<p>Preparing fruit and vegetables Investigating fruit and vegetables and generating ideas; communicating through talk and drawings.</p> <p>Using simple utensils and equipment.</p> <p>Tasting and evaluating user's preference.</p> <p>Understand where ingredients come from.</p>
KS1 Year 2	<p>Freestanding structures Generating design ideas; developing modelling and explaining using talk, mock-ups and drawings.</p> <p>Planning making, selecting tools and new and recycled materials; using finishing techniques.</p> <p>Exploring existing freestanding structures; evaluating their own products against original criteria.</p> <p>Know about strengthening structures; knowledge of vocabulary</p>	<p>Wheels and axles Generate ideas and simple design criteria.</p> <p>Develop and communicate ideas through drawings and mock-ups.</p> <p>Select a range of tools and equipment and materials to perform practical tasks.</p> <p>Explore wheels and axles and evaluate their ideas and products against original criteria.</p>			<p>Preparing fruit and vegetables Designing appealing products for a user; investigating fruit and vegetables and generating ideas; communicating through talk and drawings.</p> <p>Selecting a range of fruits and vegetables; using simple utensils and equipment.</p> <p>Tasting and evaluating user's preference; evaluating ideas and finished products against original criteria.</p> <p>Understand where ingredients come from and the basis of a healthy and varied diet.</p>

	Structures	Mechanical Systems	Electrical Systems	Textiles	Cooking & Nutrition
KS2 Year 3	<p>Shell structures</p> <p>Generate and develop realistic ideas and design criteria collaboratively and through analysis of existing products.</p> <p>Order the stages of making; selecting tools and using with some accuracy.</p> <p>Investigate and evaluate shell structures, and construct strong, stiff shell structures.</p> <p>Test and evaluate own products against design criteria and intended user and purpose.</p>	<p>Levers and linkages</p> <p>Generate realistic ideas and use annotated sketches and prototypes to develop, model and communicate ideas.</p> <p>Select and use tools with some accuracy to cut, shape and join paper and card.</p> <p>Investigate and analyse their own and others' products with lever and linkage mechanisms.</p> <p>Understand and use lever and linkages, and fixed and loose pivots.</p>			<p>Healthy and varied diet</p> <p>To sort food into the 5 food groups using the eat well plate and identify that this makes up a healthy diet. To be active and healthy and how drink is needed to provide energy (Science link).</p> <p>Plan the main stages of a recipe, listing ingredients, utensils and equipment.</p> <p>Select from a range of ingredients to make appropriate food products.</p> <p>Know a range of appropriate ingredients, and whether they are grown, reared or caught.</p>
KS2 Year 4			<p>Simple circuits and switches</p> <p>Use annotated sketches, cross-sectional and exploded diagrams to develop and communicate ideas.</p> <p>Select and use tools with some accuracy to cut, shape, join and finish.</p> <p>Use construction materials and electrical components according to their functional properties and aesthetic qualities.</p> <p>Understand and use electrical systems in their products, such as series circuits incorporating switches, bulbs and buzzers.</p>	<p>2-D shape to 3-D product</p> <p>Generate design criteria for an appealing, functional product for specific users.</p> <p>Produce annotated sketches, prototypes, final product sketches and pattern pieces.</p> <p>Select fabrics and fastenings according to their functional characteristics.</p> <p>Investigate a range of 3-D textile products.</p> <p>Test their product against the original criteria and with the intended user.</p>	<p>Healthy and varied diet</p> <p>How food is reared in the UK and the wider world.</p> <p>How to use a variety of techniques using kneading and baking. How to bake a product using a heat source.</p> <p>How to make a workspace hygienically safe to prepare food.</p> <p>How changing a seasoning on product can make it taste better or worse.</p> <p>Carry out and record evaluations of a variety of ingredients and products.</p>

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KS2 Year 5	<p>Frame structures</p> <p>Research user needs and existing products and develop and model innovative ideas into a design specification.</p> <p>Formulate a plan with a step-by-step list of tasks and resources.</p> <p>Use tools to accurately measure, mark out, cut, shape and join materials to make frameworks.</p> <p>Use finishing techniques suitable for the product and critically evaluate their products against a range of criteria.</p> <p>Research key events and individuals relevant to frame structures.</p>	<p>Pulleys or gears</p> <p>Generate ideas through research and develop and communicate a simple design specification.</p> <p>Select use a range of tools and equipment to make products that that are accurately assembled and well finished within the constraints of time, resources and cost.</p> <p>Compare the final product to the original design specification and test the quality of the design, manufacture and functionality with the intended user.</p> <p>Investigate famous manufacturing and engineering companies relevant to the project.</p>			<p>Celebrating culture and seasonality</p> <p>Write a step-by-step recipe, including a list of ingredients, equipment and utensils.</p> <p>Using appropriate utensils and equipment accurately, make, decorate and present a food product for the intended user and purpose.</p> <p>Evaluate a range of relevant products and ingredients and the final product with reference to the design brief and specification.</p> <p>Understand seasonality and the source of different food products</p>
KS2 Year 6			<p>More complex switches and circuits</p> <p>Develop a design specification for a functional product that responds automatically to changes in the environment.</p> <p>Formulate a step-by-step plan to making, listing tools, equipment, materials and components.</p> <p>Use a computer control program to enable an electrical product to work automatically in response to changes in the environment.</p> <p>Test and evaluate the system to demonstrate its effectiveness for the intended user and purpose.</p> <p>Know and use technical vocabulary relevant to the project</p>	<p>Combining different fabric shapes</p> <p>Generate and communicate innovative ideas through research.</p> <p>Produce detailed lists of equipment and fabrics and formulate step-by-step plans for making.</p> <p>Investigate and analyse textile products linked to their final product and compare the final product to the original design specification.</p> <p>Know that a 3-D textile product can be made from a combination of pattern pieces, fabric shapes and different fabrics and that fabrics can be strengthened, stiffened and reinforced.</p>	<p>Celebrating culture and seasonality</p> <p>To use a variety of techniques to produce a final product.</p> <p>How to plan and prepare a dish hygienically, safely using a heat source and how to store foods hygienically and safely.</p> <p>To recognise and understand how processed food can be used in their own cooking.</p> <p>That different foods contain different substances that are needed for health.</p> <p>To understand that not all herbs, spices and flavouring can be used with certain dishes.</p>

Design & Technology Overview

Early Years			
Year 1	Textiles: Templates and joining techniques Big Piece : Christmas stocking/Christmas card Cross-Curricular link: History- Ourselves	Mechanisms : Sliders and levers Big Piece : Moving feature of a castle Cross-Curricular link: History- Queen & Castle	Cooking & Nutrition : Preparing fruit & Vegetables Big Piece : Healthy snack for parents Cross-Curricular link: Science/PSHE
Year 2	Structures: Freestanding structures Big Piece : London landscape Cross-Curricular link: Geography- London	Mechanisms: Wheels and axles Big Piece : Ice Cream Van Cross-Curricular link: Geography- Australia/Seaside	Cooking & Nutrition : Preparing fruit & Vegetables Big Piece : Roald Dahl inspired food Cross-Curricular link:
Year 3	Structures: Shell structures Big Piece : Iron Age roundhouse Cross-Curricular link: History- Stone Age-Iron Age	Mechanisms: Levers and Linkages Big Piece : 3D storyboard Cross-Curricular link: History/Geography- Ancient Egypt/Africa	Cooking & Nutrition : Healthy and varied diet Big Piece : French lunch Cross-Curricular link: French/Geography
Year 4	Electrical systems- simple circuits and switches Big Piece : Nightlight Cross-Curricular link: History/Science	Textiles: 2D shape to produce 3D shape Big Piece : Cushion Cross-Curricular link: History- Shang Dynasty	Cooking & Nutrition : Healthy and varied diet Big Piece : Savoury Bread Cross-Curricular link: Geography- Italy
Year 5	Structures: Framed structures Big Piece : Ancient Greek building Cross-Curricular link: History- Ancient Greece	Mechanisms: Pulleys and Gears Big Piece : Victorian toy Cross-Curricular link: History - Victorians	Cooking & Nutrition : Celebrating Cultural and seasonality Big Piece : Asian inspired dish Cross-Curricular link: Geography- Asia
Year 6	Textiles: Combining different fabric shapes Big Piece : Puppet Project	Electrical systems- more complex switches and circuits Big Piece : Alarm for a valuable artefact Cross-Curricular link: History/Science	Cooking & Nutrition : Celebrating Cultural and seasonality Big Piece : Rationed Bake Off Cross-Curricular link: History- WW2/Maths