Click here for our entire DT knowledge pathway	Module 1	Module 2	Module 3	Module 4	Module 5	Module 6
Nursery Reception	Please note: Early Years use the EYFS Framework and do not engage in subject specific study. They are building pre-requisite foundational skills that will allow them to be designers and engineers in the future. Through 'Expressive Arts and Design' children are encouraged to explore the properties of different materials and develop their curiosity about how things are made. They are guided to think like designers, using their creativity to build, test, and improve their own functional ideas. See the Progression sheet for key skills and knowledge.					
Year One Click on a cell more detail	Cooking and nutrition: healthy lifestyle - kebab	Textiles: creating products	Structures: Strengthening	Textiles: creating an animal puppet	Mechanisms: Creating a new dinosaur with moving parts	Mechanisms: sliders and levers
Year Two Click on a cell more detail	Cooking and nutrition: healthy lifestyle - kebab	Textiles: creating products	Structures: Strengthening	Textiles: creating an animal puppet	Mechanisms: Creating a new dinosaur with moving parts	Mechanisms: sliders and levers
Year Three Click on a cell more detail	Cooking and nutrition	Cooking and nutrition		Mechanical Structures: Levers		Textiles: joining - sewing
Year Four Click on a cell more detail	Cooking and Nutrition	Structures: Shell Structures	Electrical Structures		Cooking and Nutrition: Earth Friendly Foods	
Year Five Click on a cell more detail		Mechanical Structures: gears and pulleys		Textiles: creativity/application	Structures: wooden frames	
Year Six Click on a cell more detail		Cooking and Nutrition			Electrical Structures	

This maps the progression in big ideas for strands of art and design and taking inspirationation year on year.
The linked Knowledge Pathways break these big ideas down into their component knowledge and skills.
We use the golden threads of Taking inspirationation, Mastering skills and Developing ideas to refine our artwork (form, line, pattern, shape, space, colour and texture)

	Mechanisms - sliders and levers				**Structures - strengthening**				**Textiles**				**Cooking and nutrition**					
Nursery																		
Reception																		
Year 1	Design: Generate ideas based on simple design criteria	Make: Understand that different mechanisms produce different types of movement: levers and sliders	Make: Select and use tools, to cut, shape and join paper and card	Evaluate: Explore a range of existing books and products that use simple sliders and levers	Know how to improve a freestanding structure and make it stronger, stiffer and more stable	Design: Develop and communicate their ideas through talking, prototypes and drawings	Make: Begin to assemble, join and combine materials and components together	Evaluate: Begin to make suggestions about how their structure could be improved/strengthened	Design: Design a functional and appealing product for a purpose based on simple design criteria - explain choices through annotated sketch designs	Make: Explore finishing techniques (i.e. painting, fabric crayons, stitching, sequins, buttons and ribbons)	Make: Join fabrics using different techniques e.g. running stitch, glue, over stitch, stapling.	Evaluate: Evaluate their ideas throughout and their final products against original design criteria						
	Mechanisms: wheels and axles				**Structures: building**													
Year 2	Design: Plan the stages of making by suggesting what to do next	Make: Understand that different mechanisms produce different types of movement: wheels and axles	Make: Use a range of tools and equipment for cutting and joining to allow movement and finishing	Evaluate: Explore and evaluate a range of products with wheels and axles	Evaluate: Evaluate the success of their product - do the wheels turn and does it move?	Design: Model and communicate their ideas through talking, prototypes and drawings		Make: Select new and reclaimed materials and construction kits to build their structure	Evaluate: Evaluate their ideas throughout and their structure against the original criteria					Design: Generate initial ideas and design criteria through investigating a variety of fruit and vegetables	Make: Know how to prepare themselves to work with food	Make: Use simple utensils and equipment to peel, cut, squeeze, grate and chop safely.	Make: Understand, use basic principles of a healthy and varied diet and where a range of fruit and vegetables come from to prepare dishes		Evaluate: Taste and evaluate the finished product
	Mechanical structures: levers								**Textiles: joining/sewing**				**Cooking and nutrition**					
Year 3	Design: Use annotated sketches to develop, model and communicate ideas	Make: Understand and use lever and linkage mechanisms (how levers can be joined together to create more complex movements)	Make: Select suitable and appropriate tools, equipment, materials and components, beginning to think about their purpose	Evaluate: Evaluate and test different types of linkages through prototyping - reverse motion, parallel, push and pull, crank and slider linkage					Design: Generate realistic ideas through discussion and design criteria for an appealing, functional product fit for purpose	Design: Use what they know about properties of various fabrics to make sensible design choices	Make: Understand how to securely join two pieces of fabric together. (E.G: Applique, reverse applique, straight stitch, back stitch, cross stitch, blanket stitch and explore other stitches)	Evaluate: Evaluate their product against the original design criteria and the purpose, making some suggestions for possible improvement	Design: Understand and apply principles of a healthy and varied diet	Design: Design products beginning to take into account the needs of others (i.e. appearance, taste, texture and aroma)	Make: Know about fresh and processed food products and the source of different food products	Make: Use simple utensils and equipment to peel, cut, squeeze, grate and chop safely. As well as: kneading, whisking, blending and measuring	Evaluate: Evaluate the ongoing work and the final product with reference to the design criteria (including the aesthetics and healthiness)	
	Mechanical structures: shell structures				**Electrical structures**								**Cooking and nutrition**					
Year 4	Design: Generate, model and communicate ideas through annotated sketches and exploded diagrams	Make: Use knowledge of nets of cubes and cuboids and knowledge of how to construct strong, stiff shell structures	Make: Select suitable and appropriate tools, equipment, materials and components, thinking about their purpose	Evaluate: Investigate and evaluate a range of shell structures including the materials, components and techniques used	Evaluate: Evaluate their work, explaining the purpose and process and reflecting on what they like, do not like and whether their product meets the design brief	Design: Develop their own design criteria and use these to inform their ideas	Make: Understand and use electrical systems in their products, such as series circuits incorporating switches, bulbs and buzzers	Make: Select from and use materials and components, according to their functional properties and aesthetic qualities	Evaluate: Evaluate their ideas and products against their own design criteria as they design and make changes as needed, following their evaluation					Design: Select from a range of ingredients to make appropriate food choices fit for purpose	Design: Know about fresh and processed ingredients and seasonality in relation to food products	Make: Know how to use utensils and equipment including heat sources to prepare and cook food.E.G: hobs, ovens.	Make: Use simple utensils and equipment to peel, cut, squeeze, grate and chop safely. As well as: kneading, whisking, blending and measuring	Evaluate: Evaluate the final product with reference to the design criteria and the views of others
	Mechanical structures: gears and pulleys				**Structures: wooden frames**				**Textiles: creativity and application**									
Year 5	Design: Formulate step-by-step plans and, if appropriate, allocate tasks within a team	Design: Understand that mechanical systems have an input, process and an output	Make: Select from and use a range of tools and equipment with some accuracy to make products	Make: Use gears and pulleys to speed up, slow down or change the direction of movement	Evaluate: Test products and critically evaluate the quality of the design, functionality and fitness for purpose	Design: Use knowledge of how to construct strong, stiff structures	Design: Develop a simple design specification to guide the development of their ideas and products	Make: Create and follow a detailed step by step plan that competently selects and uses appropriate tools to measure, mark out, cut, shape and join construction materials to make a framework	Make: Apply their knowledge to strengthen, stiffen and reinforce their 3-D framework where needed	Evaluate: Critically evaluate their products against their design specification, identifying strengths and areas for development	Design: Design purposeful, functional, appealing products for the intended user that are fit for purpose based on a simple design specification	Make: Understand how to securely join two pieces of fabric together	Make: Explore how a 3-D textile product can be made from a combination of pattern pieces, fabric shapes and different fabrics	Evaluate: Investigate and analyse textile products linked to their final product					
					Electrical Structures								**Cooking and Nutrition**					
Year 6					Design: Develop a design specification for a functional product that responds automatically to changes in the environment	Make: Apply their understanding of computing to program and control their products	Make: Create and modify a computer control program to enable their electrical product to respond to changes in the environment		Evaluate: Continually evaluate and modify the working features of the product to match the initial design specification					Design: Select from a range of ingredients to make appropriate food products (understand and apply principles of a healthy and varied diet)	Design: Know about fresh and processed ingredients and seasonality in relation to food products and the source of different food products	Design: Write a step-by-step recipe, including a list of ingredients, equipment and utensils.	Make: Know how to use utensils and equipment including heat sources to prepare and cook food.E.G: hobs and ovens.	Make: Make, decorate and present the food product appropriately for the intended user and purpose	Evaluate: Test and critically evaluate their final product

FSF Strands:						
	Year 1					
Focus for study	Cooking and nutrition: healthy lifestyle - kebab	Textiles: creating products	Structures: Strengthening	Textiles: creating an animal puppet	Mechanisms: Creating a new dinosaur with moving parts	Mechanisms: sliders and levers
Core knowledge and skills Click on blue text for linked Knowledge Pathway to see component parts	Healthy lifestyle - principles of a varied diet. Skills - Peel, cut, squeeze, grate, and chop safely using simple utensils. Functionality - Evaluate final products against original design criteria.	Joining - Using different techniques to join fabrics. Skills - running stitch, over-stitch, glue or stapling. Functionality - Design an appealing product for a purpose based on design criteria.	Stability - How to make a freestanding structure stronger. Skills - Assembling, joining, and combining materials and components. Functionality - Suggesting how a structure could be improved or strengthened.	Joining - Using different techniques to join fabrics. Skills - running stitch, over-stitch, glue or stapling. Functionality - Design an appealing product for a purpose based on design criteria.	Movement - Understanding levers and sliders. Skills - Select and use tools to cut, shape, and join paper and cards. Functionality - Explore existing products to see how they function.	Movement - Understanding levers and sliders. Skills - Select and use tools to cut, shape, and join paper and cards. Functionality - Explore existing products to see how they function.
	Year 2					
Focus for study	Cooking and nutrition: healthy lifestyle - kebab	Textiles: creating products	Structures: Strengthening	Textiles: creating an animal puppet	Mechanisms: Creating a new dinosaur with moving parts	Mechanisms: sliders and levers
Core knowledge and skills Click on blue text for linked Knowledge Pathway to see component parts	Healthy lifestyle - Understanding where food comes from and basic nutrition. Skills - Use simple utensils safely to peel, cut, squeeze, grate, and chop ingredients. Functionality - Taste and evaluate the final food product against original design goals.	Joining fabrics - Exploring different techniques to combine textiles. Skills - Use running stitch, glue, over-stitching, or stapling to join fabrics securely. Functionality - Design and make a functional puppet for a specific purpose based on simple design criteria.	Strengthening - : Developing techniques to build and strengthen structures. Skills - Select new and reclaimed materials and construction kits to build a stable structure. Functionality - Model and communicate ideas through drawings and prototypes, then evaluate against criteria.	Joining fabrics - Exploring different techniques to combine textiles. Skills - Use running stitch, glue, over-stitching, or stapling to join fabrics securely. Functionality - Design and make a functional puppet for a specific purpose based on simple design criteria.	Movement - Understanding how wheels and axles produce different types of movement. Skills - Select and use a range of tools and equipment for cutting and joining to allow movement. Functionality - Evaluate the success of the product—specifically asking, "Do the wheels turn and does it move?".	Movement - Understanding how wheels and axles produce different types of movement. Skills - Select and use a range of tools and equipment for cutting and joining to allow movement. Functionality - Evaluate the success of the product—specifically asking, "Do the wheels turn and does it move?".
	Year 3					
Focus for study	Cooking and nutrition	Cooking and nutrition		Mechanical Structures: Levers		Textiles: joining - sewing
Core knowledge and skills Click on blue text for linked Knowledge Pathway to see component parts	Nutrition - Applying principles of a healthy, varied diet and understanding food sources. Skills - Use utensils to peel, chop, and grate, while mastering kneading, whisking, and measuring. Functionality - Evaluate the final product with reference to design criteria, aesthetics, and healthiness.	Nutrition - Applying principles of a healthy, varied diet and understanding food sources. Skills - Use utensils to peel, chop, and grate, while mastering kneading, whisking, and measuring. Functionality - Evaluate the final product with reference to design criteria, aesthetics, and healthiness.		Movement - Understanding how levers and linkages join to create complex motions. Skills - Select suitable tools and components to assemble push-pull, crank, and slider linkages. Functionality - Use annotated sketches to develop ideas and test movements through prototyping.		Sewing - Mastering secure fabric joins using a variety of specific stitches. Skills - Apply applique, blanket stitch, back stitch, and cross stitch to join fabric pieces. Functionality - Generate realistic ideas for an appealing, functional product fit for a specific purpose.
	Year 4					
Focus for study	Cooking and Nutrition	Structures: Shell Structures	Electrical Structures		Cooking and Nutrition: Earth Friendly Foods	
Core knowledge and skills Click on blue text for linked Knowledge Pathway to see component parts	Sustainability - Understanding seasonality and making appropriate food choices fit for purpose. Skills - Use heat sources (hobs/ovens) safely to prepare and cook food; master kneading, whisking, and blending. Functionality - Evaluate the final product with reference to design criteria and the views of others.	3D Constuction - Understanding how to build strong, stiff shell structures using nets. Skills - Use knowledge of nets (cubes/cuboids) to select suitable tools and materials for construction. Functionality - Communicate ideas through annotated sketches and exploded diagrams; evaluate against a design brief.	Circuits and components - Integrating functional electrical systems into product design. Skills - Select materials and components (switches, bulbs, buzzers) based on functional and aesthetic properties. Functionality - Develop own design criteria and evaluate ideas/products against them, making changes as needed.		Sustainability - Understanding seasonality and making appropriate food choices fit for purpose. Skills - Use heat sources (hobs/ovens) safely to prepare and cook food; master kneading, whisking, and blending. Functionality - Evaluate the final product with reference to design criteria and the views of others.	
	Year 5					
Focus for study		Mechanical Structures: gears and pulleys		Textiles: creativity/application	Structures: wooden frames	

Core knowledge and skills Click on blue text for linked Knowledge Pathway to see component parts		Mechnical systems - Understanding how gears and pulleys can be used to change the speed and direction of movement. Skills - Select suitable tools and equipment to assemble complex mechanical components accurately. Functionality - Test and evaluate how mechanical systems function within a product, identifying strengths and areas for refinement.		Functionality design - Using textile techniques to create an appealing and functional product for a specific audience. Skills - Apply a range of stitches (such as blanket or back stitch) to join fabrics and add decorative detail. Functionality - Generate realistic ideas through discussion and use properties of fabrics to make sensible design choices.	Frame engerineering - Understanding how to build and strengthen complex frame structures. Skills - Measure, mark out, cut, and join wooden components (like dowels or laths) to create a stable frame. Functionality - Evaluate the structural integrity of the frame and its suitability for the intended user and purpose.	
	Year 6					
Focus for study		Cooking and Nutrition			Electrical Structures	
Core knowledge and skills Click on blue text for linked Knowledge Pathway to see component parts		Recipe development - Understanding processed vs. fresh ingredients and seasonality. Skills - Write a step-by-step recipe; use heat sources to cook and prepare complex dishes. Functionality - Test and critically evaluate the final product for a specific intended user and purpose.			Automation - Using computer control and sensors to create responsive products. Skills - Create and modify a computer program to enable an electrical product to respond to the environment. Functionality - Develop a design specification for a functional product that responds automatically to changes.	