



Design Technology

School Drivers						
21st Century Citizens Understanding of the Wider World		Independent Learner Independent Resilient Creative and Curious Able to think Critically			Healthy Living Outdoor Learning	
Reception	Expressive Arts and Design Creating with Materials ELG: Children at the expected level of development will: - 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 Understanding the World The Natural World ELG: Children at the expected level of development will: - Explore the natural world around them, making observations and drawing pictures of animals and plants; Physical Development Fine Motor Skills ELG: - Use a range of small tools including scissors, paintbrushes and cutlery.					
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Reception	Cooking and nutrition: Soup Core learning To explore fruits and vegetables and the differences between them.To use adjectives	Structures: Junk modelling Core learning To explore and investigate the tools and materials in the junk modelling area.		Seasonal project Easter: Hanging egg decoration Core learning To design and create a hanging Easter egg decoration.		

	to describe how fruits and vegetables look, feel, smell and taste. To listen to and recall elements from the story 'The Best Pumpkin Soup.' To explore a pumpkin and describe it using the five senses. To design a fruit and vegetable soup recipe. To practise cutting with a knife. To learn how to use a knife safely. To observe and help (where appropriate) with the use of tools to prepare ingredients. To describe the finished product and evaluate the process. To design food packaging. Vocabulary Fruit, vegetables, safety, knife, blade, tool, edge, handle, chop, slice, cut, saucepan, blender, chopping Board, hob, boil, blend, mix, packaging, recyclable, metal, plastic, reusable	To develop scissor skills. To investigate cutting different materials. To learn how to plan and select the correct resources needed to make a model. To verbally plan and create a junk model. To share a finished model and talk about the processes in its creation. To explore different ways to temporarily join materials together. Vocabulary join, stick, cut, bend, slot, scissors, measure, materials, fix Seasonal project Christmas: Sliding Santa chimneys Core learning To create a picture with a simple sliding mechanism.				
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Year 1		Textiles: Puppets <i>Core learning</i> To join fabrics together using different methods. To use a template to create my design. To join two fabrics together accurately. To embellish my design using joining methods. Vocabulary Decorate, design, fabric, glue, model, hand puppet, safety pin, staple, stencil, template		Mechanisms: Moving storybook. <i>Core learning</i> To explore making mechanisms. To design a moving storybook. To construct a moving picture. To evaluate my finished product. Vocabulary assemble, design, design criteria, model, sliders, test, mechanism, sliders, target audience, template,		Structures: Stable structures (pencil pot) <i>Core learning</i> To explore stability by balancing. To explore wide or narrow bases by building towers. To test a structure's stability with weight added in different places. To design a stable structure that meets the needs of a user - pencil pot. To use a variety of cutting and joining techniques to create a stable structure - pencil pot. Vocabulary base, narrow, stable, structure, unstable, wide, freestanding, height, tower, better, compare, weight, worse, design, product, user, like, dislike, cut, even, explain, join.

Year 2		Mechanisms: Levers Core learning To describe how seesaws are a simple lever To build and test a simple lever To describe scissors as a mechanism with two levers. To make mechanisms with two levers. To design levers for everyday use. Vocabulary lever mechanism pivot material select purpose curved direction rotate		Cooking and nutrition: Balance diet (wraps) Core learning To recognise foods and their food groups. To identify the balance of food groups in a meal. To identify an appropriate piece of equipment to prepare a given food. To select balanced combinations of ingredients. To design based on criteria. To evaluate a dish based on design criteria. Vocabulary cut, design, design brief, evaluate, fruit, grate, ingredient, smell, snip, spread, taste, vegetables.		Textiles: Pouches Core learning To sew a running stitch. To join fabrics using a running stitch. To decorate a pouch using fabric glue or running stitch. Vocabulary decorate, fabric, fabric glue, knot, needle, needle threader, running stitch, sew, template, thread.
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Year 3	Cooking and nutrition: Eating seasonally Core learning To explain why food comes from different places around the world. To explain the benefits of seasonal foods. To develop cutting and peeling skills. To evaluate seasonal ingredients. To design a mock-up using criteria. To evaluate a dish Vocabulary Appearance, arid, climate, complementary, country, cut, design, evaluate, export, fruit, grate, import, ingredients, Mediterranean			Structures: Constructing a Castle Core learning To recognise how multiple shapes (2D and 3D) are combined to form a strong and stable structure. To design a castle. To construct 3D nets. To construct and evaluate my final product. To evaluate work and the work of others. Vocabulary 2D shapes, 3D shapes, castle, design criteria, evaluate, façade, feature, flag, net, recyclable, scoring, stable, strong, structure, tab, weak		Textiles: Cross-stitch and appliqué - Egyptian collars. Core learning To learn how to sew cross-stitch and appliqué. To develop and use a template. To assemble fabric parts into a fabric product. To decorate fabric using appliqué and cross-stitch. Vocabulary asymmetrical, appliqué, cotton, cross-stitch, embellish, fabric, patch, pinking, polyester, running stitch, silk, symmetrical, template, thread, unique
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Year 4		Structure: Pavilions. Core learning To create a range of different shaped frame structures. To know what the structure (pavilion) is used for. To design a structure. To build a frame structure. To add cladding to a frame structure. Vocabulary aesthetic, cladding, design criteria, evaluation, frame structure, function, inspiration, pavilion, reinforce, stable, structure, target audience, target customer, texture, theme			Electrical systems: Torches. Core learning To learn about electrical items and how they work. To analyse and evaluate electrical products. To design a product to fit a set of specific user needs. To make and evaluate a torch. Vocabulary Battery, bulb, buzzer, cell, component, conductor, copper, design criteria, electrical item, electricity, electronic item, function, insulator, series circuit, switch, test, torch, wire	Mechanical Systems: Making a slingshot car. Core learning To build a car chassis. To design a shape that reduces air resistance. To make a model based on a chosen design. To assemble and test my completed product. Vocabulary aesthetic, air resistance, chassis, design, design criteria, function, graphics, kinetic energy, mechanism, net, structure
Year 5		Mechanical systems: Making a pop-up book. Core learning To design a pop up book.		Electrical systems: Doodlers Core learning To understand how motors are used in electrical products. To investigate an existing product to		Cooking and nutrition: Developing a recipe. Core learning To understand how ingredients are reared and processed.

		To follow a design brief to make a pop up book. To use layers and spacers to cover the working of mechanisms. To create a high-quality product suitable for a target user. Vocabulary Aesthetic, computer-aided design (CAD), caption, design, design brief, design criteria, exploded-diagram, function, input, linkage, mechanism, motion, output, pivot, prototype, slider, structure, template		determine the factors that affect the product's form and function. To put findings from research into practice to develop a unique product. To incorporate an electrical system that uses a motor. To develop a DIY kit for another individual to assemble their product. Vocabulary circuit component, configuration, current, develop, DIY, investigate, motor, motorised, problem solve, product analysis, series circuit, stable, target user		To make adaptations to design a recipe. To evaluate nutritional content. To practise food preparation skills. To design a product label. To follow and make an adapted recipe. Vocabulary Abattoir, adaptation, balanced, beef, brand, cook, cross-contamination, cut, design, enhance, equipment, evaluate, farm, grate
Year 6		Textiles: Waistcoats Core learning To design a waistcoat. To mark and cut fabric according to a design. To assemble a waistcoat.		Structure: Playgrounds. Core learning To design a playground with a variety of structures.	Cooking and nutrition: come dine with me Core learning To explain the use of complementary flavours. To research and design a three course meal.	

		To sew a simple running stitch. To decorate a waistcoat. To attach objects for decoration using thread. To evaluate work according to the design criteria. Vocabulary accurate, adapt, annotate, design, design criteria, detail, fabric, fastening, knot, properties, running-stitch, seam, sew , shape, target audience, target customer, template, thread, unique, waistcoat, waterproof		To improve designs based on peer evaluation. To build a range of structures. To improve and add detail to structures. To create the surrounding landscape. Vocabulary Adapt, apparatus, bench hook, cladding, coping saw, design, dowel, evaluation, feedback, idea, jelutong, landscape, mark out, measure, modify, natural, materials, plan view, playground, prototype, reinforce, sketch, strong, structure, tenon saw, texture, user, vice, weak	To explain recipe choices. To apply culinary skills and knowledge. To apply culinary skills and knowledge. To apply culinary skills and knowledge. Vocabulary balance, bitter, bridge method, complement, cookbook, cross-contamination, enhance, equipment, farm to fork, flavours, ingredients, method, research, pairing	
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	Curriculum End Points (NC) Designing and making.	Curriculum End Points (NC) Cooking and Nutrition
EYFS End Points	To be able to: - draw and paint using a range of materials, tools and techniques, experimenting with colour, design, texture, form and function - share their creations, explaining the process they have used - explore the natural world around them, making observations and drawing pictures of animals and plants - Use a range of small tools including scissors, paintbrushes and cutlery.	
KS1 End Points	To be able to: - design purposeful, functional, appealing products for themselves and other users based on design criteria - generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology - select from and use a range of tools and equipment to perform practical tasks - select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics - explore and evaluate a range of existing products - evaluate their ideas and products against design criteria - build structures, exploring how they can be made stronger, stiffer and more stable - explore and use mechanisms in their products.	To be able to: - use the basic principles of a healthy and varied diet to prepare dishes - understand where food comes from
KS2 End Points	To be able 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 - generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design - select from and use a wider range of tools and equipment to perform practical tasks accurately - 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 - investigate and analyse a range of existing products	To be able to: - understand and apply the principles of a healthy and varied diet - 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

	• evaluate their ideas and products against their own design criteria and consider the views of others to improve their work • understand how key events and individuals in design and technology have helped shape the world • apply their understanding of how to strengthen, stiffen and reinforce more complex structures • understand and use mechanical systems in their products • understand and use electrical systems in their products • apply their understanding of computing to program, monitor and control their products	
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