Newbridge Primary School Design Technology at Newbridge Primary School									
The Design Process			Technical Processes				Food and Healthy Eating		
Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making.			Children will be taught practical methods and strategies to produce a useable product that is fit for purpose. Appropriate tools and systems will be used to achieve a specific outcome.			Children will understand how to eat healthily and where food originates from. Food processes and production will be taught so children have an awareness of food across the globe.			
Curriculum Thread	EYFS		KS1	L	KS2			UKS2	
	EYFS	Year 1	Year 2	Year 3	dosign crite	Year 4	Year 5	Year 6	
The Design Process	what I hear with relevant questions, comments and actions when being read to and during whole class discussions and small group interactions; Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary;	themselves and other us Generate, develop, mod ideas through talking, dr and, where appropriate, communication technolo Select from and use a wi components, including c and ingredients accordin Explore and evaluate a ra Evaluate their ideas and	ers based on design criteria el and communicate their awing, templates, mock-ups information and Pgy de range of materials and onstruction materials, textiles ig to their characteristics ange of existing products products against design	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 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 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					
Coverage and knowledge	Ongoing	Moving Pictures (Term 2 Children think up excitin and inventive ways to bring their pictures to life through a variety of moving mechanisms. The will explore sliders, lever pivots and wheel mechanisms and how they can be used to mak different parts of a picture move.	 Vehicles (Term 3) Children will investigate a variety of different vehicles before undertaking the fun task of designing, making and evaluating their own vehicle. They will learn all about wheels, axles and chassis and how they are combined to make the framework of the vehicle, as well as how to create an eye-catching body. 	Pencil Cases (Term 6) Children make their very own pencil cases! They will think about different materials used to make pencil cases and the different ways they are opened and closed. They will learn how to use a variety of stitches including running stitch, whip stitch and back stitch, as well as how to decorate their pencil case creations!	Seasonal 2) Children use their and skills sewing to joining a fabric in and mak Christma	I Stockings (Term will develop and r knowledge of, s in, a variety of echniques for nd decorating order to design the their very own as stocking!	Making African Instruments (Term 5) Explore the rich and energetic genre of African music and use it to inspire the investigation and creation of several different African instruments including the kalimba, djembe drum and the shekere.	Chinese Inventions (Term 6) Explore the innovative culture of ancient China and discover the inventions that have helped shape the world, including paper, the compass, gunpowder and the moveable-type printing press.	
Vocabulary	picture, drawing, use, materials, use, idea, improve	planning, investigating design, evaluate, make, user, purpose, ideas, product,	investigating, planning, design, make, evaluate, user, purpose, ideas, design criteria, product, function	model, prototype, annotated sketch, functional, innovative, investigate, label, drawing, annotated sketch, appealing	evaluatir ,prototyp design bi sensory,	ng, design criteria, pe, innovative, rief, planning, evaluations	design decisions, functionality, authentic, design specification, research, evaluate, annotate, mock-up	function, innovative, design brief, user, design specification, prototype, annotated sketch, purpose, user, functional, prototype	
Technical Processes	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; Make use of props and materials when role playing characters in narratives and stories.	Select from and use a ran perform practical tasks [joining and finishing Build structures, explorin stronger, stiffer and mor Explore and use mechan sliders, wheels and axels	Select from and use a wider range of tools and equipment to perform practical tasks [for example, butting, shaping, joining and finishing], accurately Apply their understanding of how to strengthen, stiffen and reinforce more complex structures Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] Apply their understanding of computing to program, monitor and control their products						

	Use a range of small tools, including scissors, paint brushes and cutlery;							
Coverage and knowledge	Ongoing	Puppets (Term 1) Starting off by looking at simple finger puppets, your class will then develop and refine their sewing skills before designing, creating and evaluating their own glove puppets.	Homes (Term 2) These lessons will provide all the tools they need to design, make and evaluate their own model houses.	Moving Monsters (Term 2) A chance to get to grips with pneumatic systems before designing, making and evaluating their own monster with moving parts.	Making Mini Greenhouses (Term 4) Children will find out the purpose of a greenhouse and how it works, before moving on to exploring how structures like these can be made stable, and what materials would be the most appropriate to use.	Building Bridges (Term 4) Using readily-available materials such as card, paper or art straws, children will explore ways in which forces act on bridge structures, how they are constructed and how they are strengthened.	Programming Pioneers (Term 2) Focus on designing, developing, testing and prototyping computer-controlled electronic systems for rooms such as motion-sensor activated alarms, door buzzer entry systems or even 'smart home' automatic lights!	
Vocabulary	experiment, change, tools, materials, use.	cut, fold, join, fix structure, wall, tower, framework, weak, strong, base, top, underneath, side, edge, surface, thinner, thicker, corner, point, straight, curved, metal, wood, plastic circle, triangle, square, rectangle	fabric, names of fabrics, fastening, compartment, zip, button, structure, finishing technique, strength, weakness, stiffening, templates, stitch, seam, seam allowance	series circuit, fault, connection, toggle switch, push-to-make switch, push-to-break switch, battery, battery holder, bulb, bulb holder, wire, insulator, conductor, crocodile clip, control, program, system, input device, output device	frame structure, stiffen, strengthen, reinforce, triangulation, stability, shape, join, temporary, permanent	shell structure, three- dimensional (3-D) shape, net, cube, cuboid, prism, vertex, edge, face, length, width, breadth, capacity, marking out, scoring, shaping, tabs, adhesives, joining, assemble, accuracy, material, stiff, strong, reduce, reuse, recycle, corrugating, ribbing, laminating, font, lettering, text, graphics, decision	reed switch, toggle switch, push-to-make switch, push-to-break switch, light dependent resistor (LDR), tilt switch, light emitting diode (LED), bulb, bulb holder, battery, battery holder, USB cable, wire, insulator, conductor, crocodile clip control, program, system, input device, output device, series circuit, parallel circuit	
Food and Healthy Eating	Manage my own basic hygiene and personal needs and understanding the importance of healthy food	Use the basic principles of a prepare dishes Understand where food cor	a healthy and varied diet to mes from	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				
Coverage and knowledge	Ongoing	Eat More Fruit and Vegetables (Term 6) Explore a variety of fruits and vegetables, what they look like, taste like and feel like, as well as how to prepare fruits and vegetables through cutting, grating, peeling and more. They will then have the challenge of designing, making and evaluating their own salad or smoothie.	Where does our food come from? (Term 5) Understanding where our food comes from. How food ends up coming from the field to our forks.		Seasonal Food (Term 6) Children learn about seasonal food and seasonal cooking with these DT seasonality plans, recipes and activities.		Rationing! (Term 2) A challenge for children to design, cook, taste and evaluate their own vegetable turnovers using ingredients available through rationing. Can they combine flavours to produce tasty, healthy meals?	
Vocabulary	food, meal, snack, healthy, diet	fruit and vegetable names, names of equipment and utensils sensory vocabulary	fruit and vegetable names, names of equipment and utensils sensory vocabulary		ingredients, texture, taste, sweet, sour, hot, spicy, appearance, smell, savoury, hygienic, edible,		ingredients, fat, sugar, carbohydrate, protein, vitamins, nutrients, nutrition, healthy, varied, gluten, dairy, allergy, intolerance, savoury, source, seasonality	

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