DT curriculm map- 22-23

Year	Autumn	Spring	Summer
EYFS	FOOD:	FOOD:	STRUCTURES:
	-Fruit kebabs: design and assemble fruit a stick.	-Sandwiches	-Construct houses out of wood, straw, bricks and other
	STRUCTURES:	MECHANISMS	materials and check durability. (link to science- forces).
	-Woodwork (ongoing through the year)	-Design and make Junk modelling - Vehicles - join and	
		assembly materials using a variety of tools.	
	Design and create, refine when necessary, join using glue	STRUCTURES:	
	and tape, use equipment to cut food safely	-Design and make musical instruments. join and	
		assembly materials using a variety of tools.	
Y1	STRUCTURES:	TEXTILES:	FOOD:
	-3D Tudor Houses	-Meerkat puppet.	-Design and make a healthy eating plate.
	ECOD.	MECHANISMS	
	Making 17 th contury bicquite	Moving Pictures: Pen up books. Sliders and lovers	
	-waxing 17 century discurts.	-woving rictures. rop-up books, sinders and levers.	
Y2	TEXTILES:	FOOD:	MECHANISMS:
	-Patches for a Guy	-design and make Humous (linked to stone age history	-Wheels and axles
		topic)	
Y3	STRUCTURES:	TEXTILES:	MECHANISMS:
	-Volcanos	-Flowers (linked to science topic on plants).	-mechanical poster display
		F00D	
		FOOD:	
VA			Electrical systems:
¥4	STRUCTURES/IVIECHAINISIVIS:	STRUCTURES/MECHANISIMS:	Electrical systems:
	STEMPERS	-chanols + shields (linked to komans history topic)	-Torches
	Slidere	FOOD	
	-Silders	Pizzo	
		-F122d	
Y5	STRCTURES:	TEXTILES:	FOOD:
	-Building a Resistant materials: ship STEM challenge	-Make an expedition bag (linked to Australia geography	-Cornish Pasties (linked to local history study)
	(linked to Titanic history project)	topic)	
Y6	TEXTILES:	FOOD:	STRUCTURES:
	-Make do and Mend	-South American dish (linked to South American	-Playground equipment project
		geography topic)	
	MECHANISMS:		
	-Gliders – WW2		



Charlestown DT curriculm map 2023-2024. We are designers!

Our curriculm is carefully designed with the pupils at Charlestown in mind. It is a spiral curriculm where pupils return to key strands again and again. Each time a strand is revisited it is covered with greater depth and complexity. Prior knowledge is constantly utilized so pupils can build on previous foundations rather that starting again.

Year	Autumn	Spring	Summer	Bonus projects
EYFS	<u>FOOD: fruit kebabs & sandwiches</u> Skills: use equipment to cut food safely	Structures: musical instruments FOOD: Sandwiches Skills: Join using glue and tap. Design and create, refining as necessary. Use equipment to cut food safely FOOD: Sandwiches	Structures: houses- construction kit Skills: Join using glue and tap. Design and create, refining as necessary.	Woodwork projects
Y1	<u>MECHANISMS</u> : <u>Moving pictures- books.</u> Skills: Explore and use sliders and levers. Understand that different mechanisms produce different types of movement. Career highlight: product designer	<u>TEXTILES: Meercat puppets (Africa- geography link).</u> Skills: Understand how simple 3D 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. Explore different finishing techniques. Career highlight: product designer	FOOD: A healthy eating plate (Animals incl humans- science link) Skills: 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 plate. Career highlight: Chef, dietitian, farmer	Egyptian papyrus (Ancient Egypt- history link) *Take inspiration from Ancient Egyptian inventions
Y2	MECHANISMS: Moving vehicles Skills: Explore and use wheels, axles and axle holders. Distinguish between fixed and freely moving axles. Career highlight: engineer, mechanic, *Take inspiration from the invention of cars by Carl Benz in 1886	FOOD: Hummus (Stone age- history topic) Skills: 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 plate. Career highlight: Chef, dietitian, farmer,	<u>STRUCTURES</u> : <u>3-D houses (Materials- science link)</u> Skills: Know how to make freestanding structures stronger, stiffer and more stable. <i>Use software to design models</i> . Career highlight: builder, engineer, architect,	Patches for Guy Fawkes (Guy Fawkes-history link)
Y3	<u>TEXTILES: pencil cases/bags</u> Skills: 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. Career highlight: product designer, materials scientist,	<u>FOOD:</u> Greek flatbread (Ancient Greeks- history link) Skills: 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. Career highlight: Chef, dietitian, farmer, nutritionist	MECHANICAL SYSTEMS: Mechanical posters display (curriculum link) Skills: Understand and use lever and linkage mechanisms. Distinguish between fixed and loose pivots. Career highlight: Mechanical engineer *Take inspiration from Archimedes who developed the principle of the lever and invented the compound pully.	Volcanos (Volcanos- geography link) Flowers (Plants- Science link) Parthenon (Greeks- History link)
Y4	STRUCTURES: Packaging/boxes for rainforest provisions (rainforests- geography link). Develop and use knowledge of how to construct strong, stiff shell structures. Develop and use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes. Use software to design and represent models. Career highlight: builder, engineer, architect,	FOOD: Pizza. Skills: 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. Career highlight: Chef, dietitian, farmer, nutritionist *Take inspiration from pizza through history (including the Romans, ancient Greeks, ancient Egyptians and Italy)	ELECTRICAL SYSTEMS: Torches (electricity- science link). Skills: Understand and use electrical systems in their products linked to science coverage. Apply their understanding of computing to program and control their products. Disassemble products to see how they work. Career highlight: product design, electrician, computer hardware engineer,	Chariots and shields (Romans- history link) Shelters (Rainforests- geography link)
Y5	MECHANICAL SYSTEMS: Moving toys (forces- science link) Skills: Understand that mechanical and electrical systems have an input, process and an output. Understand how gears and pulleys can be used to speed up, slow down or change the direction of movement. Career highlight: toy designer,	TEXTILES: Expedition bag (Australia- geography link). Skills: Produce a 3-D textile product from a combination of accurately made pattern pieces, fabric shapes and different fabrics. Understand how fabrics can be strengthened, stiffened and reinforced where appropriate. Career highlight: product designer, clothing designer, materials scientist,	FOOD: Cornish pasties (Cornwall- local history link). Skills: 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. Career highlight: Chef, dietitian, farmer, nutritionist *Take inspiration from the history of the pasty and its invention.	Titanic ships (Titanic- history link) Rockets (Space- science link)
Y6	ELECTRICAL SYSTEMS: Crumble project- i.e burglar alarm (electricity- science link, computing links). Skills: Understand and use electrical systems in their products linked to science coverage. Apply their understanding of computing to program, monitor and control their products. Career highlight: electrician, robotic engineer, software developer, sound engineer	<u>FOOD:</u> A South American dish (South America- geography link) Skills: 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. Career highlight: Chef, dietitian, farmer, nutritionist	STRUCTURES: Playgrounds -create mini playground structures (end of year project linked to RSHE, maths) Skills: Understand how to strengthen, stiffen and reinforce 3-D frameworks. Use software to design and represent models. *Take inspiration from the history of different playground equipment. Career highlight: MP, engineer, builder	Chocolate packaging (South America- geography link)

		EYFS skills map	
Unit	Food: Fruit kababs	Food: Sandwiches Structure: Musical instruments	Structure: houses- construction kits
Cross curricular links	RSHE link- Healthy me	Link to music.	Houses link to history topic
Design *Development Matters	 Choose the right resources to carry out their Develop their own ideas and then decide w Create collaboratively, sharing ideas, resourt Explore, use and refine a variety of artistic etail 	own plan. hich materials to use to express them. rces and skills. ffects to express their ideas and feelings.	
Make & Technical knowledge *Development Matters	 Explore different materials freely, in order to develop their ideas about how to use them and what to make. Select and use activities and resources. Use one handed tools and equipment, for example making snips in paper with scissors. Develop small motor skills so they can use a range of tools competently, safely and confidently. Use a range of small tools, including scissors, paintbrushes and cutlery. 	 Explore different materials freely, in order to develop their ideas about how to use them and what to make. Select and use activities and resources. Use one handed tools and equipment, for example making snips in paper with scissors. Develop small motor skills so they can use a range of tools competently, safely and confidently. Use a range of small tools, including scissors, paintbrushes and cutlery. 	 Explore different materials freely, in order to develop their ideas about how to use them and what to make. Select and use activities and resources. Use one handed tools and equipment, for example making snips in paper with scissors. Develop small motor skills so they can use a range of tools competently, safely and confidently. Use a range of small tools, including scissors, paintbrushes and cutlery.
Evaluate *Development Matters	 Explore how things work. Return to and build on previous learning, re 	fining ideas and developing their ability to represent t	:hem
Inspiration			Houses from history
DT career focus	Chef	Product designer	Builder
Vocabulary	planning, design, make, ideas, fruit and vegetable names, names of equipment and utensils, sensory vocabulary e.g. soft, juicy, crunchy, sweet, sticky, smooth, sharp, crisp, sour, hard flesh, skin, seed, pip, core, slicing, peeling, cutting, squeezing, healthy diet, choosing, ingredients.	Investigate, planning, design, make, ideas, cut, fold, join, fix,, wall, tower, weak, strong, top, underneath, side, edge, surface, thinner, thicker, corner, point, straight, curved, metal, wood, triangle, square, rectangle	planning, design, make, ideas, card, tape, glue, paper, join, pull, push, up, down, straight, curve, forwards, backwards

		Year 1 skills map	
Unit	Mechanisms: moving picture books	Textiles: Meercat puppets	Food: A healthy eating plate
Cross curricular links		Africa geography topic	Animals including humans science link
Design	 Design appealing products for a particular user based on simple design criteria. Generate initial ideas and design criteria through own experiences. Develop and communicate these ideas through talk and drawings and mock ups where relevant. 		
Make & Technical knowledge	 Explore and use sliders and levers. Understand that different mechanisms produce different types of movement. 	 Understand how simple 3D 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. Explore different finishing techniques. 	 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 plate. Select and use simple utensils, tools and equipment to perform a job e.g. peel, cut, slice, squeeze, grate and chop safely; marking out, cutting, joining and finishing; cut, shape and join paper and card. Select from a range of ingredients and materials according to their characteristics to create a chosen product.
Evaluate	 Taste, explore and evaluate a range of produce Evaluate their ideas throughout and finished 	cts to determine the intended user's preferences for the products against design criteria, including intended user	e product r and purpose
Inspiration			
DT career focus	 product designer 	 product designer 	Chef,dietitian,farmer
Vocabulary	planning, investigating, design, evaluate, make, user, purpose, ideas, product, slider, lever, pivot, slot, bridge/guide, card, masking tape, paper fastener, join, pull, push, up, down, straight, curve, forwards, backwards	planning, investigating, design, evaluate, make, user, purpose, ideas, product, joining and finishing techniques, tools, fabrics and components, template, pattern pieces, mark out, join, decorate, finish	planning, investigating, design, evaluate, make, user, purpose, ideas, product, fruit and vegetable names, names of equipment and utensils, sensory vocabulary e.g. soft, juicy, crunchy, sweet, sticky, smooth, sharp, crisp, sour, hard flesh, skin, seed, pip, core, slicing, peeling, cutting, squeezing, healthy diet, choosing, ingredients,

Year 2 skills map				
Unit	Mechanisms- moving vehicles	Food- hummus	Structures- 3-D houses	
Cross curricular links		History stone age link	Materials science link	
Design	 Generate ideas based on simple design criteria and their own experiences, explaining what they could make. Develop, model and communicate their ideas through talking, mock-ups and drawings. Plan by suggesting what to do next 			
Make & Technical knowledge	 Explore and use wheels, axles and axle holders. Distinguish between fixed and freely moving axles. Select new and materials, components, reclaimed materials and construction kits to build and create their products. Use simple finishing techniques suitable for the products they are creating. 	 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 plate. 	 Know how to make freestanding structures stronger, stiffer and more stable. Use software to design models. Select and use tools, equipment, skills and techniques to perform practical tasks, explaining their choices. 	
Evaluate	Explore a range of existing products related t	o their design criteria.		
	 Evaluate their product by discussing how well 	l it works in relation to the purpose, the user and wheth	er it meets the original design criteria.	
Inspiration	Take inspiration from the invention of cars by Carl			
DT career focus	 engineer, mechanic, 	 Chef, dietitian, farmer, 	 builder, engineer, architect, 	
Vocabulary	investigating, planning, design, make, evaluate, user, purpose, ideas, design criteria, product, function, vehicle, wheel, axle, axle holder, chassis, body, cab assembling, cutting, joining, shaping, finishing, fixed, free, moving, mechanism names of tools, equipment and materials used	investigating, planning, design, make, evaluate, user, purpose, ideas, design criteria, product, function, fruit and vegetable names, names of equipment and utensils, sensory vocabulary e.g. soft, juicy, crunchy, sweet, sticky, smooth, sharp, crisp, sour, hard flesh, skin, seed, pip, core, slicing, peeling, cutting, squeezing, healthy diet, choosing, ingredients,	investigating, planning, design, make, evaluate, user, purpose, ideas, design criteria, product, function, 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, cuboid, cube, cylinder	

	N N	Year 3 skills map	
Unit	Textiles- pencil cases/bags	Food- Greek flatbread	Mechanical systems- mechanical poster display
Cross curricular links		Ancient Greeks- history link	Curriculm link
Design	 Generate realistic ideas through discussion and design criteria for an appealing, functional product fit for purpose and specific user/s. Use annotated sketches, prototypes, final product sketches and pattern pieces; communication technology, such as web-based recipes, to develop and communicate ideas. Plan the stages of making 		
Make & Technical knowledge	 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. Select from and use finishing techniques suitable for the product they are creating. 	 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. 	 Understand and use lever and linkage mechanisms. Distinguish between fixed and loose pivots. Select from and use a range of appropriate utensils, tools and equipment with some accuracy related to their product.
Evaluate	 Investigate a range of 3-D textile products, ingredients and lever and linkage products relevant to their project. Test their product against the original design criteria and with the intended user. Evaluate the ongoing work and the final product with reference to the design criteria and the views of others. 		
Inspiration			Take inspiration from Archimedes who developed the principle of the lever and invented the compound pully.
DT career focus	 Product designer Materials scientist 	 Chef Dietitian Farmer Nutritionist 	Mechanical engineer
Vocabulary	user, purpose, design, model, evaluate, prototype, annotated sketch, functional, innovative, investigate, label, drawing, function, planning, design criteria, annotated sketch, appealing, fabric, names of fabrics, fastening, compartment, zip, button, structure, finishing technique, strength, weakness, stiffening, templates, stitch, seam, seam allowance	user, purpose, design, model, evaluate, prototype, annotated sketch, functional, innovative, investigate, label, drawing, function, planning, design criteria, annotated sketch, appealing, name of products, names of equipment, utensils, techniques and ingredients texture, taste, sweet, sour, hot, spicy, appearance, smell, preference, greasy, moist, cook, fresh, savoury, hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal, harvested healthy/varied diet	user, purpose, design, model, evaluate, prototype, annotated sketch, functional, innovative, investigate, label, drawing, function, planning, design criteria, annotated sketch, appealing, mechanism, lever, linkage, pivot, slot, bridge, guide system, input, process, output, linear, rotary, oscillating, reciprocating

Year 4 skills map				
Unit	Structures: Packaging for rainforest products	Food: Pizza	Electrical systems: torches	
Cross curricular links	Rainforests geography link		Electricity- science link	
Design	 Generate and clarify ideas through discussion particular individuals or groups. Use annotated sketches and appropriate info Generate, develop, model and communicate diagrams. Order the main stages of making. 	with peers to develop design criteria to inform the desi rmation and communication technology, such as web-b realistic ideas through discussion and, as appropriate, a	ign of products that are fit for purpose, aimed at ased recipes, to develop and communicate ideas. nnotated sketches, cross-sectional and exploded	
Make & Technical knowledge	 Develop and use knowledge of how to construct strong, stiff shell structures. Develop and use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes. Use software to design and represent models. Select and use appropriate tools to measure, mark out, cut, score, shape and combine with some accuracy related to their products. Explain their choice of materials according to functional properties and aesthetic qualities. 	 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. Select from and use materials and components, including ingredients, construction and electrical components according to their function and properties. 	 Understand and use electrical systems in their products linked to science coverage. Apply their understanding of computing to program and control their products. Disassemble products to see how they work. Select from and use materials and components, including ingredients, construction and electrical components according to their function and properties. 	
Evaluate	 Investigate and evaluate a range of products Test and evaluate their own products against Evaluate their ideas and products against the 	including the ingredients, materials, components and te design criteria and the intended user and purpose. ir own design criteria and identify the strengths and are	chniques that are used. as for improvement in their work.	
Inspiration		Take inspiration from pizza through history (including the Romans, ancient Greeks, ancient Egyptians and Italy)		
DT career focus	BuilderEngineerArchitect	 Chef Dietitian Farmer Nutritionist 	Product designerElectricianComputer hardware engineer	
Vocabulary	evaluating, design brief design criteria, innovative, prototype, user, purpose, function, prototype, design criteria, innovative, appealing, design brief, planning, annotated sketch, sensory evaluations, 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,	evaluating, design brief design criteria, innovative, prototype, user, purpose, function, prototype, design criteria, innovative, appealing, design brief, planning, annotated sketch, sensory evaluations, name of products, names of equipment, utensils, techniques and ingredients texture, taste, sweet, sour, hot, spicy, appearance, smell, preference, greasy, moist, cook, fresh, savoury, hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal, harvested healthy/varied diet	evaluating, design brief design criteria, innovative, prototype, user, purpose, function, prototype, design criteria, innovative, appealing, design brief, planning, annotated sketch, sensory evaluations, 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	

Year 5 skills map				
Unit	Mechanical systems: moving toys	Textiles: expedition bag	Food: Cornish pasties	
Cross curricular links	Forces- science link	Geography- Australia link	Cornwall- local history study link	
Design	 Generate innovative ideas through research including surveys, interviews and questionnaires and discussion with peers to develop a design brief and criteria for a design specification. Design purposeful, functional, appealing products for the intended user that are fit for purpose based on a simple design specification. Develop and communicate ideas through discussion, annotated drawings, exploded drawings and drawings from different views. and, where appropriate, computer-aided design. Produce detailed lists of equipment and fabrics relevant to their tasks. Write a step hystem plan including a list of recovered provided. 			
Make & Technical knowledge	 Understand that mechanical and electrical systems have an input, process and an output. Understand how gears and pulleys can be used to speed up, slow down or change the direction of movement. Select from and use, a range of appropriate utensils, tools and equipment accurately to measure and combine appropriate ingredients, materials and resources. 	 Produce a 3-D textile product from a combination of accurately made pattern pieces, fabric shapes and different fabrics. Understand how fabrics can be strengthened, stiffened and reinforced where appropriate. Select from and use, a range of appropriate utensils, tools and equipment accurately to measure and combine appropriate ingredients, materials and resources. 	 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. 	
Evaluate	 Investigate and analyse products linked to their final product. Compare the final product to the original design specification and record the evaluations. Test products with intended user and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose. Consider the views of others to improve their work 			
Inspiration			Take inspiration from the history of the pasty and its invention.	
DT career focus	Toy designer	 Product designer Clothing designer Materials scientist 	 Chef Dietitian Famer nutritionist 	
Vocabulary	design decisions, functionality, authentic, user, purpose, design specification, design brief, innovative, research, evaluate, design criteria, annotate, evaluate, mock-up, prototype, pulley, drive belt, gear, rotation, spindle, driver, follower, ratio, transmit, axle, motor, circuit, switch, circuit diagram, annotated drawings, exploded diagrams, mechanical system, electrical system, input, process, output,	design decisions, functionality, authentic, user, purpose, design specification, design brief, innovative, research, evaluate, design criteria, annotate, evaluate, mock-up, prototype, seam, seam allowance, wadding, reinforce, right side, wrong side, hem, template, pattern pieces, name of textiles and fastenings used, pins, needles, thread, pinking shears, fastenings,	design decisions, functionality, authentic, user, purpose, design specification, design brief, innovative, research, evaluate, design criteria, annotate, evaluate, mock-up, prototype, ingredients, yeast, dough, bran, flour, wholemeal, unleavened, baking soda, spice, herbs fat, sugar, carbohydrate, protein, vitamins, nutrients, nutrition, healthy, varied, gluten, dairy, allergy, intolerance, savoury, source, seasonality, utensils, combine, fold, knead, stir, pour, mix, rubbing in, whisk, beat, roll out, shape, sprinkle, crumble	

Year 6 skills map				
Unit	Electrical systems: crumble project (burglar alarm)	Food: South American dish	Structures: Playground structures project	
Cross curricular links	Electricity- science link. Computing link	South America- geography link	End of year project linked to RSHE and maths	
Design	 Use research using surveys, interviews, quest Develop a simple design specification to guide cost. Generate and develop innovative ideas and sl Communicate ideas through annotated sketc Formulate a step-by-step plan to guide makin 	ionnaires and web based resources. to develop a design e the development of their ideas and products, taking a nare and clarify these through discussion. hes, pictorial representations of electrical circuits or circ g, listing tools, equipment, materials and components.	a specification for a range of functional products. ccount of constraints including time, resources and cuit diagrams.	
Make & Technical knowledge	 Understand and use electrical systems in their products linked to science coverage. Apply their understanding of computing to program, monitor and control their products. Competently select from and use appropriate tools to accurately measure, mark, cut and assemble materials, and securely connect electrical components to produce reliable, functional products. 	 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. 	 Understand how to strengthen, stiffen and reinforce 3-D frameworks. Use software to design and represent models. Use finishing and decorative techniques suitable for the product they are designing and making. Competently select from and use appropriate tools to accurately measure, mark, cut and assemble materials, and securely connect electrical components to produce reliable, functional products. 	
Evaluate	 Continually evaluate and modify the working features of the product to match the initial design specification. Critically evaluate their products against their design specification, intended user and purpose, identifying strengths and areas for development, and carrying out appropriate tests. Test the system to demonstrate its effectiveness for the intended user and purpose. 			
Inspiration			Take inspiration from the history of different playground equipment.	
DT career focus	 Electrician Robotic engineer Software developer Sound engineer 	 Chef Dietitian Farmer Nutritionist 	 Engineer builder MP 	
Vocabulary	function, innovative, design specification, design brief, user, purpose design brief, design specification, prototype, annotated sketch, purpose, user, innovation, research, functional, mock-up, prototype, 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	function, innovative, design specification, design brief, user, purpose design brief, design specification, prototype, annotated sketch, purpose, user, innovation, research, functional, mock-up, prototype, ingredients, yeast, dough, bran, flour, wholemeal, unleavened, baking soda, spice, herbs fat, sugar, carbohydrate, protein, vitamins, nutrients, nutrition, healthy, varied, gluten, dairy, allergy, intolerance, savoury, source, seasonality, utensils, combine, fold, knead, stir, pour, mix, rubbing in, whisk, beat, roll out, shape, sprinkle, crumble	function, innovative, design specification, design brief, user, purpose design brief, design specification, prototype, annotated sketch, purpose, user, innovation, research, functional, mock-up, prototype, frame structure, stiffen, strengthen, reinforce, triangulation, stability, shape, join, temporary, permanent	