



Teaching and learning of Design Technology in the Early Years

Overview and aims of the Curriculum	<p>The EYFS framework is organized across seven areas of learning. The most relevant statements for Design Technology are taken from the Physical Development and Expressive Arts and Design areas of learning. In addition, Communication and Language underpins the curriculum and is integral to children learning. Children are taught key vocabulary and are encouraged to express their own ideas and viewpoints. Our Early Years curriculum is designed to ensure children are taught and are able to practice the prerequisite skills and vocabulary to successfully access Design Technology in later years. This is achieved by teaching specific skills or knowledge through short focus tasks and by adult modelling and interactions during Continuous Provision. During provision time, adults encourage children to talk about what they want to make and help them evaluate their creations. Adults model key skills, encouraging children to practice and apply them to make their own creations. The Characteristics of Effective Learning are also central to Design Technology. Through ‘Playing and Exploring’, children are encouraged to investigate and have a go. Through ‘Active learning’, children concentrate and learn to keep on trying even when they encounter difficulties. Through ‘Creating and thinking Critically’, children have and develop their own ideas.</p> <p><u>This means by the end of Reception children will have had opportunities to:</u></p> <ul style="list-style-type: none"> •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. •Use a range of small tools, including scissors, paintbrushes and cutlery.
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Continuous Provision across the Early Years- Coverage of objectives

	<p>Children across Early Years will have opportunities to:</p> <ul style="list-style-type: none"> •To explore and respond to a wide range of media and materials •To construct with a purpose in mind, using different media and materials to express their own ideas. •To explore and experiment with different ways to build, construct and join materials. •To use a range of small tools competently, safely and confidently e.g. scissors, pencils, paintbrushes and knives. •To create, choosing their own resources for a product and adapting their work where necessary. 	
Designing <small>(Planning/communiating</small>	<ul style="list-style-type: none"> •To explore different materials freely to develop their ideas/opinions about how to use them and what to make. •To develop their own ideas by telling an adult what they are going to 	<ul style="list-style-type: none"> •To design and construct with a purpose in mind, using different media and materials to express their ideas •To select from a range of resources and tools to create their chosen



<p>ideas)</p>	<p>make and decide which materials to use to express them</p> <ul style="list-style-type: none"> •To choose what they will need with adult support. 	<p>product.</p> <ul style="list-style-type: none"> •To communicate their ideas through talk. •To develop and communicate their ideas through drawing, using a design sheet
<p>Making (key skills)</p>	<ul style="list-style-type: none"> •To use simple tools and techniques •To join different materials e.g. using tape and glue and explore different textures. •To use one handed tools and equipment e.g. making snips in paper with scissors •With adult support, follow a simple recipe to make porridge. •To understand we need to wash our hands before handling food. 	<ul style="list-style-type: none"> •To select tools and techniques to shape, assemble and join. •To use a range of small tools competently, safely and confidently e.g. scissors, pencils, paintbrushes and knives. •To use a range of small tools to cut, shape and join paper and card e.g. scissors and split pins •To explore joining different materials e.g. using tape •To explore how to join different materials using Pva •To hold scissors correctly and use them safely •To use scissors to cut around a shape •To use split pins to join paper and create moveable body parts e.g. wings, ears and legs. •To follow a simple recipe with adult support. •To understand basic food hygiene. •To use simple utensils and equipment including a knife and chopping board to cut safely. •To use the bridge hold to cut soft foods •To practice mixing, stirring, pouring and combining ingredients. •To cut shapes in dough using a cutter •To observe and talk about changes they can see after mixing and cooking. •To choose ways to decorate and finish a product e.g. painting, sequins, buttons, crayons.
<p>Evaluating</p>	<ul style="list-style-type: none"> •To talk about their model. •To discuss their work with an adult, saying what they like. 	<ul style="list-style-type: none"> •To share their creations with a friend saying how they are the same and different. •To talk about what they like best about their product/ creation. •To talk about what they like and dislike about their creations. •To share their creations explaining how they made them.



- To return to previous learning and refine their ideas

Continuous Provision: Resources, vocabulary and ongoing objectives

<p>Construction area (Indoors)</p>	<p>Resources: Variety of small blocks, Community Play blocks (Variety of different sizes and shapes), stickle bricks, Duplo, mobilio, Lego, design sheets, labels, pictures of buildings, transport. Range of builder tools e.g. drill, saw and hammers. Children are encouraged to explore, problem solve, build and connect. Large rolls of paper and mark making equipment.</p> <p>Typical activities: Children create their own designs and make selections from the choices of resources that are available e.g. construct small houses/ farms shelters for farm animals, making fire engines and rockets.</p> <p>Key vocabulary: design, design sheet, plan, draw, label, balance, build, make, construct, structure, bricks, blocks, tower, short, tall, tallest, small, smallest, long, longer and tools.</p>
<p>Construction area (Outdoors)</p>	<p>Resources: Big wooden blocks, planks, milk crates, bread crates, wheels, tyres and plastic blocks. Den making materials, e.g. range of fabrics, bull dog clips, pegs, poles, tarpaulin and plastic sheeting.</p> <p>Typical activities: Building structures e.g. baby bears house or ice cream stall and creating their own transport e.g. buses, trains and rockets. Children are encouraged to work collaboratively to create their own dens, exploring how to build and balance blocks or attach materials.</p> <p>Key vocabulary: construct, build, design, plan, balance, construct, structure, bricks, blocks, in, through, on top, under, behind, next to, tall, tallest, big, small, short, tower and tools.</p>
<p>Malleable area</p>	<p>Resources: Variety of tools and equipment e.g. modelling tools, cutters, rolling pins, textured rolling pins, spoons, baking trays, pans, presses, plastic knives and equipment linked to food preparation. Variety of decorative items linked to theme of the week or children's interests. Playdough and plasticine.</p> <p>Typical activities: Dough disco, creating forms linked to stories e.g. aliens, chicks, owls, making cakes, creating mini beasts.</p> <p>Key vocabulary: twist, turn, push, pull, press, cutter, cut, roll, mix, combine, decorate, shape, recipe.</p>
<p>Creative area</p>	<p>Resources: Junk modelling items (E.g. boxes, tubes, bottle tops) felt tips, pencil crayons, markers, crayons, glue sticks, pva bottles and spreaders, variety of scissors, masking tape, split pins, cellotape, paperclips, string, pipe cleaners and lolly sticks. A variety of cards and papers, gummed paper, variety of decorative materials e.g. pom-poms, mosaic tiles, glitter, sequins and match sticks. Resources are added throughout the year as children demonstrate they are ready to extend their learning.</p> <p>Typical activities: Children are encouraged to create with a purpose using their own ideas. They select their own materials and explore ways to join materials. They may make stick puppets, crowns, collaging, bracelets, make cards, junk models. They are encouraged to decorate their designs using the available resources.</p>



	Key vocabulary: card, paper, cardboard, join, thick, thin, glue, glue stick, scissors, fold, cut, press, decorate, stick, shape, create, finish, mix.	
Mark making/ Writing area	<p>Resources: A variety of writing materials e.g. pens, pencils, crayons, pencil crayons, markers. Different sizes and thickness of paper, clipboards, whiteboards to create designs or make marks. Hole punch and sticky notes for labels. Chalks and large rolls of paper.</p> <p>Typical activities: Drawing and creating own pictures, creating labels and signs.</p> <p>Key vocabulary: plan, draw, write, design.</p>	
Snack	<p>Resources: Snack items e.g. apples, bananas, carrots, broad beans, raisins, tomatoes, cheese, crackers, yoghurts, cups, jugs, milk, water, juice, bottle, spoons, paper towels, tea towels, drainer, washing up liquid and safety knife.</p> <p>Typical activity: Children choose their own snack. They learn the names of a variety of fruits and vegetables. In Preschool there is a rolling snack and children are supported to choose, peel or cut their own snack. During the Reception year children are encouraged to wash up after snack, learning about cleanliness and hygiene.</p> <p>Key vocabulary: Names of fruits and vegetables e.g. apple, orange, banana, pears, broad beans, carrots, peel, wash, spread, healthy, unhealthy, bottle, jugs, spoon, drainer and tea towel.</p>	
Mud kitchen Outdoors	<p>Resources: Children choose from a range of resources such as Kitchen top, sink area, real life microwave, buckets, sieves, pots and pans, frying pan, scales, bread tin, jugs, bowls, whisks, ladle, masher, spoons and cutlery. Sensory resources e.g. pine cones, flour, pebbles, sticks, trugs/ buckets of soil, grass and leaves.</p> <p>Typical activities: Role play using tools and equipment linked to food and drink preparation. Children create their own foods and recipes. They practice stirring and mixing, investigating what happens when you add water.</p> <p>Key vocabulary: cook, bake, whisk, bake, mix, roll, pouring, stirring, add, altogether, what next? Spoon, fork, sieve, whisk, ladle, pan, microwave, masher, wooden, spoon. Adjectives for textures, positional vocabulary, verbs for mixing, Instructional commands, time connectives.</p>	
Fine motor area	<p>Resources: Threading items, nuts and bolts, laces, ribbon, weaving frames, variety of threading cards, hole punch, tweezers, hammer and shapes, scissors and cutting activities e.g. cutting paper, pasta, jelly.</p> <p>Key vocabulary: thread, push, pull, forwards, backwards, squeeze, cut, turn, twist, ribbon, laces</p>	
All provision	<ul style="list-style-type: none"> •To explore different materials, using all their senses. •To manipulate and play with different materials. 	<ul style="list-style-type: none"> •To explore malleable media e.g. clay, salt dough, playdough and sand.



areas	<ul style="list-style-type: none"> •To make imaginative and complex small world with blocks and constructions kits e.g. make different buildings or a park. •To experiment and build with a range of construction materials. •To construct, stacking blocks vertically and horizontally, making enclosures and creating spaces. •To join construction pieces together to build and balance •To build structures such as houses and homes, using a variety of materials. •To select tools and techniques to shape, assemble and join. •To explore joining different materials e.g. using glue sticks. •To explore joining different materials e.g. using tape. •To explore joining different materials e.g. using split pins. •To explore how to join different materials e.g. using Pva. •To develop control in holding and using jugs to pour, hammers and mark-making tools. •To develop a preference for a dominant hand. •To use simple tools to effect changes to materials. •To practice using simple tools and techniques. •To hold scissors correctly and use them safely. •To use scissors without the support of an adult and with increasing control. •To make snips with scissors in paper. •To use scissors to cut in a straight line. •To use scissors to cut in a curved line. •To use scissors to cut around a shape. •To use one handed tools and equipment e.g. making snips in paper with scissors. •To use a range of small tools competently, safely and confidently e.g. scissors, pencils, paintbrushes and knives. 	<ul style="list-style-type: none"> •To manipulate malleable materials, developing control e.g. play dough to create form by pushing, rolling, pinching. •To cut shapes using cutters and other modelling tools. •To use a hammer to attach wooden shapes to a board. •To thread laces, string and ribbon through a variety of shapes and resources. •To be able to tear paper •To be able to fold paper. •To join materials by overlapping. •To use different materials to collage. •To explore and experiment to create different textures. •To understand basic hygiene. •To practice mixing, stirring, pouring and combining ingredients. •To know they need to wash their hands and clean surfaces before preparing food. •To talk about the taste and texture of different foods •To choose ways to decorate and finish a product e.g. painting, sequins, buttons, crayons. •To make simple models to express their ideas. •To make models using a variety of different materials •To select from a range of resources and tools to create their chosen product. •To construct with a purpose in mind, using a variety of resources. •To manipulates materials to achieve a planned effect. •To create collaboratively sharing ideas and resources. •To explore, use and refine a variety of artistic effects to express their ideas and feelings. •To return to and build upon their previous learning, refining ideas and developing their ability to present them. •To share their creations explaining how they made them.
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Year Group	Term	Topic	Area of Design & Technology	Skills	Knowledge	Vocabulary
Preschool	Ongoing	Across the year		<ul style="list-style-type: none"> See Continuous Provision objectives and opportunities above. 		
	Autumn 2	Goldilocks and the three bears	Food and Nutrition	<p>Designing</p> <ul style="list-style-type: none"> To explore different flavored porridge and toppings freely, to develop their opinions about whether to use them. To choose what they will need with adult support. <p>Making</p> <ul style="list-style-type: none"> With adult support, follow a simple recipe to make porridge. To use one handed tools and equipment including a spoon, and jug. <p>Evaluating</p> <ul style="list-style-type: none"> To discuss the porridge with an adult, saying what they like/dislike about it. 	<p>Technical Knowledge</p> <ul style="list-style-type: none"> To know we stir with a spoon. To know we can pour milk from a jug. To know that a microwave is used to heat food. To know and name key utensils and ingredients such as spoon, microwave and jug, porridge oats, honey and jam. 	Porridge oats, honey, jam, bowl, spoon, mix, jug, microwave
	Spring 2	The very hungry caterpillar	Food and Nutrition (Cutting fruit)	<p>Designing</p> <ul style="list-style-type: none"> To explore different fruits freely to develop their ideas about how to make their own fruit salad. 	<p>Technical Knowledge</p> <ul style="list-style-type: none"> To know and name a selection of fruits- apple, pear, strawberry, plums, oranges. To know fruits are healthy 	Apple, pear, strawberry, plums, oranges Knife, cut, salad



				<ul style="list-style-type: none"> •To talk about the taste of fruit saying which fruit they like the best. • To develop their own ideas by telling an adult what fruits they want in their salad. •To choose what they will need with adult support. <p>Making</p> <ul style="list-style-type: none"> •To understand we need to wash our hands before handling food. •With support, to use simple tools and techniques e.g. cutting with bridge hold. •With support, use one handed tools e.g. knife. <p>Evaluating</p> <ul style="list-style-type: none"> •To discuss their fruit salad with adult, saying what they liked best. 	<ul style="list-style-type: none"> •To know how to hold and use a knife safely with support. •To know they need to wash their hands before preparing food. •To know and use technical vocabulary relevant to the project- cut, knife, fruit names, salad. 	
Year group Reception	Term	Topic	Area of Design & Technology	Skills	Knowledge	Vocabulary
	Autumn 1	Healthy Eating Fruit kebabs linked to	Food and nutrition (Cutting fruit)	<p>Designing</p> <ul style="list-style-type: none"> •To design and construct with a purpose in mind using different materials to express their ideas. 	<p>Technical Knowledge</p> <ul style="list-style-type: none"> •To know and name a selection of fruits •To know fruit is part of a healthy 	fruit names e.g. Kiwi, banana, melon, strawberry names of equipment and



		Kitchen Disco book		<ul style="list-style-type: none"> • To decide which fruit they would like to include in their kebab through investigating a variety of fruit. •To talk about the taste and texture of fruit saying which fruit they like the best. •To communicate their ideas through talk. <p>Making</p> <ul style="list-style-type: none"> •To use simple utensils and equipment including a knife and chopping board to cut safely. •To use the bridge hold to cut soft foods •To select from a range of fruit e.g. texture and taste to create a chosen product. <p>Evaluating</p> <ul style="list-style-type: none"> •To talk about what they like best about their fruit kebab. 	<p>diet.</p> <ul style="list-style-type: none"> •To know how to hold and use a knife safely. •To know what the 'bridge hold' is. •To know they need to wash their hands and clean surfaces before preparing food. •To know and use technical vocabulary relevant to the project. 	<p>utensils e.g. knife, chopping board, skewer</p> <p>senses vocabulary e.g. soft, hard, juicy, sweet, smooth, rough.</p> <p>skin, peel, seed, pip, bridge hold, cutting, healthy diet, planning, tasting, design, favourite</p>
	Autumn 2	Space themed Junk model (Robot/rockets)	Structures (Joining materials)	<p>Designing</p> <ul style="list-style-type: none"> •To design and construct with a purpose in mind using different materials to express their ideas. •To select from a range of resources and tools to create their chosen product. •To communicate their ideas 	<p>Technical knowledge</p> <ul style="list-style-type: none"> •To know and name the main features of a rocket/ robot. •To know how to hold scissors correctly •To know how to join materials using Pva. •To know how to join materials 	<p>Rocket- cone, boosters, flames, body</p> <p>robot- body parts, antennae, join, decorate, masking tape, pva,</p>



			<p>through talk.</p> <p>Making</p> <ul style="list-style-type: none"> •To explore joining different materials e.g. using tape. •To explore how to join different materials using Pva. •To hold scissors correctly and use them safely. •To select tools and techniques to shape, assemble and join materials e.g. scissors, masking tape and Pva. •To use a range of small tools safely and competently e.g. scissors, pencils, paintbrushes and Pva. •To choose ways to decorate and finish a product e.g. painting, sequins, buttons, felt tips and crayons. <p>Evaluating</p> <ul style="list-style-type: none"> •To share their creations with a friend saying how they are the same and different. •To talk about what they like and dislike about their creations 	<p>using tape.</p> <ul style="list-style-type: none"> •To know how to hold and use a paintbrush. •To know and use technical vocabulary relevant to the project. 	<p>glue stick, paint, assemble, shape, bottle tops, tin foil, pipe cleaners, card, buttons, crayons, making, finishing, cut, shape, triangle, square, circle, same, different, like, dislike.</p>
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<p>Spring 1</p>	<p>Gingerbread people (Baking)</p>	<p>Food and Nutrition</p>	<p>Designing</p> <ul style="list-style-type: none"> •To design and construct with a purpose in mind using different media and materials to express their ideas e.g. design gingerbread person to sell. •To select from a range of resources and tools to create their chosen product. •To develop and communicate their ideas through drawing, using a design sheet. <p>Making</p> <ul style="list-style-type: none"> •To follow a simple recipe with adult support. •To understand basic food hygiene. •To use a range of small tools safely and competently e.g. spoons, rolling pin. •To practice mixing, stirring, pouring and combining ingredients. •To cut shapes in dough using a cutter •To observe and talk about changes they can see after mixing and cooking. •To choose suitable ways to decorate and finish their 	<p>Technical Knowledge</p> <ul style="list-style-type: none"> •To know what a recipe is. •To know what ingredients means. •To know they need to wash their hands and clean surfaces before preparing food. •To know how to use a rolling pin and cutter to create shapes in dough <p>To know what dough is</p> <ul style="list-style-type: none"> •To know it is important to use oven gloves when removing hot food from an oven. •To know that putting the dough in the oven will cause it to change. •To know how to join simple decorations to their finished product e.g. smarties, strawberry laces with icing. 	<p>plan, design, design sheet, shape, decorations, design sheet, gingerbread, ingredients, recipe rolling pin, cutter, bowl, spoon, mix, stir, pour, combine, dough, change, same, different, hard, soft sticky, wet, dry, oven, oven gloves, temperature, icing, I wonder what would happen if....</p>
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				<p>product e.g. icing, smartie buttons, laces.</p> <p>Evaluating</p> <ul style="list-style-type: none"> •To share their creations explaining how they made them. •To return to previous learning and refine their ideas 		<p>How did you? What did you do first? Next? What would you do differently next time? What would you change? Why?</p>
	Spring 2	Easter chicks/ rabbits	<p>Mechanisms (Joining - split pins to make moveable body parts)</p>	<p>Designing</p> <ul style="list-style-type: none"> •To design and construct with a purpose in mind, using different media and materials to express their ideas •To select from a range of resources and tools to create their chosen product. •To develop and communicate their ideas through drawing, using a design sheet <p>Making</p> <ul style="list-style-type: none"> •To select tools and techniques to shape, assemble and join. •To use a range of small tools to cut, shape and join paper and card e.g. scissors and split pins •To hold scissors correctly and use them safely •To use scissors to cut around a shape. 	<p>Technical Knowledge</p> <ul style="list-style-type: none"> •To know their design must have a moveable body part. To know how to join paper and card using a split pin • To know that using a split pin will allow the paper to move • To know how to hold scissors correctly. • To know how to use Pva to attach decorative items • To know and use technical vocabulary relevant to the project. 	<p>plan, design, design sheet, paper fastener, split pin, join, move, moveable, pull, push, up, down, straight, curve, make, body parts e.g. legs, wings, beak, ears, feathers, nose. I wonder what would happen if.... How did you? What did you do first?</p>



				<ul style="list-style-type: none"> •To use split pins to join paper and create moveable body parts e.g. wings, ears and legs. •To choose suitable ways to decorate and finish their product e.g. feathers, eyes, felt tips. <p>Evaluating</p> <ul style="list-style-type: none"> •To share their creations explaining how they made them. •To return to previous learning and refine their ideas 		<p>Next?</p> <p>What would you do differently next time?</p> <p>What would you change?</p> <p>Why?</p>
Year Group 1 & 2	Term	Topic -	Area of Design & Technology	Skills	Knowledge	Vocabulary
Cycle A	Autumn 2	Templates and Joining – Making a Christmas finger puppet.	Textiles	<p>Designing</p> <ul style="list-style-type: none"> • To design a functional and appealing product for a chosen user and purpose based on simple design criteria. • To generate, develop, model and communicate their ideas as appropriate through talking, drawing, templates, mock-ups and information and communication technology. <p>Making</p> <ul style="list-style-type: none"> • To select from and use a range 	<p>Technical Knowledge</p> <ul style="list-style-type: none"> •To know what is required from a given design criteria and know how to meet those requirements in your design. • To know how simple 3-D textile products are made, using a template to create two identical shapes. • To know how to join fabrics using different techniques e.g. running stitch, glue, stapling. • To know how to use different 	<p>template, pattern pieces, mark out, join, decorate, finish features, suitable, quality mock-up, design brief, design criteria, make, evaluate, user,</p>



				<p>of tools and equipment to perform practical tasks such as marking out, cutting, joining and finishing.</p> <ul style="list-style-type: none"> • To use a running stitch to join fabric. • To use a finishing technique such as painting, fabric crayons, stitching, sequins, buttons or ribbons. • To select from and use textiles according to their characteristics. <p>Evaluating</p> <ul style="list-style-type: none"> • To explore and evaluate a range of existing textile products relevant to the project being undertaken. • To evaluate their ideas throughout and their final products against original design criteria. 	<p>finishing techniques e.g. using painting, fabric crayons, stitching, sequins, buttons and ribbons.</p> <ul style="list-style-type: none"> • To know and use technical vocabulary relevant to the project. • To know the process of evaluation against original design criteria. 	<p>purpose, function names of existing products, joining and finishing techniques, tools, fabrics, components</p>
	Spring 1	Preparing Fruit and Vegetables – making a savory product.	Food and Nutrition	<p>Designing</p> <ul style="list-style-type: none"> • To design appealing products for a particular user based on simple design criteria. • To generate initial ideas and design criteria through investigating a variety of fruit and vegetables. 	<p>Technical Knowledge</p> <ul style="list-style-type: none"> • To know what is required from a given design criteria and know how to meet those requirements in your design. • To know where a range of fruit and vegetables come from e.g. 	<p>fruit and vegetable names, names of equipment and utensils, sensory vocabulary e.g. soft, juicy, crunchy, sweet,</p>



				<ul style="list-style-type: none"> • To communicate these ideas through talk and drawings. <p>Making</p> <ul style="list-style-type: none"> • To use simple utensils and equipment including a peeler, scissors, juicer and grater to peel, cut, slice, squeeze and grate safely. • To use a knife to cut safely. • To select from a range of fruit and vegetables according to their characteristics e.g. colour, texture and taste to create a chosen savoury product. <p>Evaluating</p> <ul style="list-style-type: none"> • To explore a range of existing books and everyday products that use simple sliders and levers. • To evaluate their product by discussing how well it works in relation to the purpose and the user and whether it meets design criteria. 	<p>farmed or grown at home.</p> <ul style="list-style-type: none"> • To know and use basic principles of a healthy and varied diet to prepare dishes, including how fruit and vegetables are part of the eat-well plate. • To know which piece of simple equipment is best used on which food item. • To know and use technical and sensory vocabulary relevant to the project. • To know the process of evaluation against original design criteria. 	<p>sticky, smooth, sharp, crisp, sour, hard flesh, skin, seed, pip, core, slicing, peeling, cutting, squeezing, healthy diet, choosing, ingredients, planning, investigating tasting, arranging, popular, design, evaluate, criteria</p>
	Summer 2	Freestanding Structures – Linked with Great Fire of	Structures	<p>Designing</p> <ul style="list-style-type: none"> • To generate ideas based on simple design criteria and their own experiences, explaining 	<p>Technical Knowledge</p> <ul style="list-style-type: none"> • To know what is required from a given design criteria and know how to meet those requirements in your 	<p>cut, fold, join, fix structure,</p>



		<p>London</p>		<p>what they could make.</p> <ul style="list-style-type: none"> • To develop, model and communicate their ideas through talking, mock-ups and drawings. <p>Making</p> <ul style="list-style-type: none"> • To plan by suggesting what to do next. • To select and use tools, skills and techniques, explaining their choices. • To select new and reclaimed materials and construction kits to build their structures. • To use tape and glue to secure parts of their structure together. • To use simple finishing techniques suitable for the structure they are creating. <p>Evaluating</p> <ul style="list-style-type: none"> • To explore a range of existing freestanding structures in the school and local environment e.g. everyday products and buildings. • To evaluate their product by discussing how well it works in relation to the purpose, the user and whether it meets the 	<p>design.</p> <ul style="list-style-type: none"> • To know how to join different materials securely. • To know the difference between new and reclaimed materials. • To know how to make freestanding structures stronger, stiffer and more stable. • To know which finishing techniques are suitable for their product. • To know and use technical vocabulary relevant to the project. • To know the process of evaluation against original design criteria. 	<p>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 design, make, evaluate, user, purpose, ideas, design criteria,</p>
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Year Group 1 & 2	Term	Topic -	Area of Design & Technology	Skills	Knowledge	Vocabulary
Cycle B	Autumn 2	Sliders and Levers – Christmas cards	Mechanisms	<p>original design criteria.</p> <p>Designing</p> <ul style="list-style-type: none"> • To generate ideas based on simple design criteria and their own experiences, explaining what they could make. • To develop, model and communicate their ideas through drawings and mock-ups with card and paper. <p>Making</p> <ul style="list-style-type: none"> • To plan by suggesting what to do next. • To select and use tools, explaining their choices, to cut, shape and join paper and card. • To use either a simple slider or simple lever in their project. • To use simple finishing techniques suitable for the product they are creating. <p>Evaluating</p> <ul style="list-style-type: none"> • To explore a range of existing books and everyday products that use simple sliders and 	<p>Technical Knowledge</p> <ul style="list-style-type: none"> • To know what is required from a given design criteria and know how to meet those requirements in your design. • To know how to join paper and card • To know how to use basic sliders and levers. • To know that different mechanisms produce different types of movement. • To know and use technical vocabulary relevant to the project. • To know the process of evaluation against original design criteria. 	<p>product, function</p> <p>slider, lever, pivot, slot, bridge/guide card, masking tape, paper fastener, join pull, push, up, down, straight, curve, forwards, backwards design, make, evaluate, user, purpose, ideas, design criteria, product, function</p>



				<p>levers.</p> <ul style="list-style-type: none"> To evaluate their product by discussing how well it works in relation to the purpose and the user and whether it meets design criteria. 		
	Spring 2	Wheels and axels – linked to transport topic	Mechanisms	<p>Designing</p> <ul style="list-style-type: none"> To generate initial ideas and simple design criteria through talking and using own experiences. To develop and communicate ideas through drawings and mock-ups. <p>Making</p> <ul style="list-style-type: none"> To select from and use a range of tools and equipment to perform practical tasks such as cutting and joining to allow movement and finishing. To select from and use a range of materials and components such as paper, card, plastic and wood according to their characteristics. To use techniques to ensure that the wheels are free moving. <p>Evaluating</p>	<p>Technical Knowledge</p> <ul style="list-style-type: none"> To know what is required from a given design criteria and know how to meet those requirements in your design. To know how to use wheels, axles and axle holders. To know the difference between fixed and freely moving axles. To know and use technical vocabulary relevant to the project. To know the process of evaluation against original design criteria. 	<p>vehicle, wheel, axle, axle holder, chassis, body, cab assembling, cutting, joining, shaping, finishing, fixed, free, moving, mechanism names of tools, equipment and materials used, design, make, evaluate, purpose, user, criteria, functional</p>



				<ul style="list-style-type: none"> • To explore and evaluate a range of products with wheels and axles. • To evaluate their ideas throughout and their products against original criteria. 		
	Summer 2	Preparing fruit and vegetables – making a sweet product using fruits	Food and Nutrition	<p>Designing</p> <ul style="list-style-type: none"> • To design appealing products for a particular user based on simple design criteria. • To generate initial ideas and design criteria through investigating a variety of fruit and vegetables. • To communicate these ideas through talk and drawings. <p>Making</p> <ul style="list-style-type: none"> • To use simple utensils and equipment including a peeler, scissors, juicer and grater to peel, cut, slice, squeeze and grate safely. • To use a knife to cut safely. • To select from a range of fruit, according to their characteristics e.g. colour, texture and taste to create a chosen fruit based product. 	<p>Technical Knowledge</p> <ul style="list-style-type: none"> • To know what is required from a given design criteria and know how to meet those requirements in your design. • To know where a range of fruit and vegetables come from e.g. farmed or grown at home. • To know which piece of simple equipment is best used on which food item. • To know and use basic principles of a healthy and varied diet to prepare dishes, including how fruit and vegetables are part of the eat-well plate. • To know and use technical and sensory vocabulary relevant to the project. • To know the process of evaluation against original design criteria. 	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,



				<p>Evaluating</p> <ul style="list-style-type: none">• To explore a range of existing books and everyday products that use simple sliders and levers.• To evaluate their product by discussing how well it works in relation to the purpose and the user and whether it meets design criteria.		<p>ingredients, planning, investigating, tasting, arranging, popular, design, evaluate, criteria</p>
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Year Group 3 & 4	Term	Topic -	Area of Design & Technology	Skills	Knowledge	Vocabulary
Cycle A	Autumn 2	Levers and Linkages. Linked to Christmas cards.	Mechanical systems	<p>Designing</p> <ul style="list-style-type: none"> To generate realistic ideas and their own design criteria through discussion, focusing on the needs of the user. To use annotated sketches and prototypes to develop, model and communicate ideas. <p>Making</p> <ul style="list-style-type: none"> To order the main stages of making. To select from and use appropriate tools with some accuracy to cut, shape and join paper and card. To use linkages and levers systems to create an oscillating reciprocating movement. To select from and use finishing techniques suitable for the product they are creating. <p>Evaluating</p> <ul style="list-style-type: none"> To investigate and analyse books and, where available, other products with lever and linkage mechanisms. 	<p>Technical Knowledge</p> <ul style="list-style-type: none"> To know how to develop a design criteria based on the needs of the user and how to meet those needs in their design. To know how to use lever and linkage mechanisms to create movement. To know the difference between fixed and loose pivots. To know and use technical vocabulary relevant to the project. To know how to test their finished product against their design criteria with reference to the intended user and views of others. 	mechanism, lever, linkage, pivot, slot, bridge, guide system, input, process, output linear, rotary, oscillating, reciprocating user, purpose, function prototype, design criteria, innovative, appealing, design brief



				<ul style="list-style-type: none"> To evaluate their own products and ideas against criteria and user needs, as they design and make. 		
	Spring 1	<p>Healthy and varied diet. Linked to Geography (Italy or Greece) making a heated or cooked, savory product</p>	<p>Food and Nutrition</p>	<p>Designing</p> <ul style="list-style-type: none"> To generate and clarify ideas through discussion with peers and adults to develop design criteria including appearance, taste, texture and aroma for an appealing product for a particular user and purpose. To use annotated sketches and appropriate information and communication technology, such as web-based recipes, to develop and communicate ideas. <p>Making</p> <ul style="list-style-type: none"> To plan the main stages of a recipe, listing ingredients, utensils and equipment. To use a grater to grate cheese. To spread butter or similar on a bread product. To cut with a knife by using the bridge technique. To cut with a knife using the 	<p>Technical Knowledge</p> <ul style="list-style-type: none"> To know how to develop a design criteria based on the needs of the user and how to meet those needs in their design. To know how to use appropriate equipment and utensils to prepare and combine food. To know how to safely cut ingredients and when to use each grip technique. To know about a range of fresh and processed ingredients appropriate for their product, and whether they are grown, reared or caught. To know and use relevant technical and sensory vocabulary appropriately. To know how to test their finished product against their design criteria with reference to the intended user 	<p>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,</p>



				<p>claw technique.</p> <ul style="list-style-type: none"> • To select and use appropriate utensils and equipment to prepare and combine ingredients. • To select from a range of ingredients to make appropriate food products, thinking about sensory characteristics. • To safely use equipment to cook or heat the chosen product as part of preparation. <p>Evaluating</p> <ul style="list-style-type: none"> • To carry out sensory evaluations of a variety of ingredients and products. Record the evaluations using e.g. tables and simple graphs. • To evaluate the ongoing work and the final product with reference to the design criteria and the views of others. 	<p>and views of others.</p>	<p>tinned, processed, seasonal, harvested, healthy/varied diet, planning, design criteria, purpose, user, annotated sketch, sensory, evaluations</p>
	<p>Summer 2</p>	<p>Simple circuits and switches. Linked to Science (electricity).</p>	<p>Electrical Systems</p>	<p>Designing</p> <ul style="list-style-type: none"> • To gather information about needs and wants, and develop design criteria to inform the design of products that are fit 	<p>Technical Knowledge</p> <ul style="list-style-type: none"> • To know how to develop a design criteria based on the needs of the user and how to meet those needs in their design. 	<p>series circuit, fault, connection, toggle switch, push-to-make switch,</p>



			<p>for purpose, aimed at particular individuals or groups.</p> <ul style="list-style-type: none"> • To generate, develop, model and communicate realistic ideas through discussion and, as appropriate, annotated sketches, cross-sectional and exploded diagrams. <p>Making</p> <ul style="list-style-type: none"> • To order the main stages of making. • To select from and use tools and equipment to cut, shape, join and finish with some accuracy. • To select from and use materials and components, including construction materials and electrical components according to their functional properties and aesthetic qualities. • To include at least one type of switch. • To connect wires safely using a connection box or twist technique. <p>Evaluating</p> <ul style="list-style-type: none"> • To investigate and analyse a 	<ul style="list-style-type: none"> • To know how to use electricity safely. • Know and use electrical systems in their products, such as series circuits incorporating switches, bulbs and buzzers. • Apply their knowing of computing to program and control their products. • Know and use technical vocabulary relevant to the project. • To know how to test their finished product against their design criteria with reference to the intended user and views of others. 	<p>push-to-break switch, battery, battery holder, bulb, bulb holder, wire, insulator, conductor, crocodile clip control, program, system, input device, output device, user, purpose, function, prototype, design criteria, innovative, appealing, design brief</p>
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				<p>range of existing battery-powered products.</p> <ul style="list-style-type: none"> • To evaluate their ideas and products against their own design criteria and identify the strengths and areas for improvement in their work. 		
Year Group 3 & 4	Term	Topic -	Area of Design & Technology	Skills	Knowledge	Vocabulary
Cycle B	Autumn 2	<p>Healthy and varied diet. Linked to Science (Animals inc Humans – Digestive system).</p>	Food and Nutrition	<p>Designing</p> <ul style="list-style-type: none"> • To generate and clarify ideas through discussion with peers and adults to develop design criteria including appearance, taste, texture and aroma for an appealing product for a particular user and purpose. • To use annotated sketches and appropriate information and communication technology, such as web-based recipes, to develop and communicate ideas. <p>Making</p> <ul style="list-style-type: none"> • To plan the main stages of a recipe, listing ingredients, utensils and equipment. 	<p>Technical Knowledge</p> <ul style="list-style-type: none"> • To know how to develop a design criteria based on the needs of the user and how to meet those needs in their design. • To know how to use appropriate equipment and utensils to prepare and combine food. • To know how to safely cut ingredients and when to use each grip technique. • To know when it is appropriate to use particular pieces of equipment to complete a given task. • To know about a range of fresh and processed ingredients appropriate for their product, and 	<p>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,</p>



				<ul style="list-style-type: none"> •To use a grater to grate cheese. •To spread butter or similar on a bread product. <p>To cut with a knife by using the bridge technique.</p> <ul style="list-style-type: none"> •To cut with a knife using the claw technique. • To select and use appropriate utensils and equipment to prepare and combine ingredients. • To select from a range of ingredients to make appropriate food products, thinking about sensory characteristics. <p>Evaluating</p> <ul style="list-style-type: none"> • To carry out sensory evaluations of a variety of ingredients and products. Record the evaluations using e.g. tables and simple graphs. • To evaluate the ongoing work and the final product with reference to the design criteria and the views of others. 	<p>whether they are grown, reared or caught.</p> <ul style="list-style-type: none"> • To know and use relevant technical and sensory vocabulary appropriately. •To know how to test their finished product against their design criteria with reference to the intended user and views of others. 	<p>edible, grown, reared, caught, frozen, tinned, processed, seasonal, harvested, healthy/varied diet, planning, design criteria, purpose, user, annotated sketch, sensory evaluations</p>
	Spring 2	Shell structures. Linked to History	Structures	<p>Designing</p> <ul style="list-style-type: none"> • To generate realistic ideas and design criteria collaboratively through discussion, focusing on 	<p>Technical Knowledge</p> <ul style="list-style-type: none"> •To know how to develop a design criteria based on the needs of the user and how to meet those needs 	<p>shell structure, three-dimensional (3-D) shape, net,</p>



		(ancient Egypt)	<p>the needs of the user and the functional and aesthetic purposes of the product.</p> <ul style="list-style-type: none"> • To develop ideas through the analysis of existing shell structures. <p>Making</p> <ul style="list-style-type: none"> • To plan the order of the main stages of making. • To select and use appropriate tools to measure, mark out, cut, score, shape and assemble with some accuracy. • To use a technique to stiffen and strengthen their material (either laminating, corrugating or ribbing). • To explain their choice of materials according to functional properties and aesthetic qualities. • To use some finishing and decorative techniques suitable for the product they are designing and making. <p>Evaluating</p> <ul style="list-style-type: none"> • To investigate and evaluate a range of shell structures including the materials, 	<p>in their design.</p> <ul style="list-style-type: none"> • Know how to use scoring to fold card accurately. • Develop and use knowledge of how to construct strong, stiff shell structures with techniques such as laminating, corrugating and ribbing. • Develop and use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes. • Know and use technical vocabulary relevant to the project. • To know how to test their finished product against their design criteria with reference to the intended user and views of others. 	<p>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,</p>
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				<p>components and techniques that have been used.</p> <ul style="list-style-type: none"> • To test and evaluate their own products against design criteria and the intended user and purpose. 		<p>decision, evaluating, design brief, design criteria, innovative, prototype</p>
	<p>Summer 2</p>	<p>2D shape to 3D product. Linked to Science (materials).</p>	<p>Textiles</p>	<p>Designing</p> <ul style="list-style-type: none"> • To generate realistic ideas through discussion and design criteria for an appealing, functional product fit for purpose and specific user/s. • To produce annotated sketches, prototypes, final product sketches and pattern pieces. <p>Making</p> <ul style="list-style-type: none"> • To plan the main stages of making. • To select and use a range of appropriate tools to complete tasks with some accuracy e.g. cutting, joining and finishing. • To join fabric using a running stitch and one other stitch such as over-sew or blanket stitch. • To use a technique such as embroidery, applique or other embellishment to decorate fabric. 	<p>Technical Knowledge</p> <ul style="list-style-type: none"> • To know how to develop a design criteria based on the needs of the user and how to meet those needs in their design. • To know how to strengthen, stiffen and reinforce existing fabrics. • To know how to securely join two pieces of fabric together using a running stitch and 1 other stitch. • To know the need for patterns and seam allowances. • To know and use technical vocabulary relevant to the project. • To know how to test their finished product against their design criteria with reference to the intended user and views of others. 	<p>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,</p>



				<ul style="list-style-type: none"> To select fabrics and fastenings according to their functional characteristics e.g. strength, and aesthetic qualities e.g. pattern. <p>Evaluating</p> <ul style="list-style-type: none"> To investigate a range of 3-D textile products relevant to the project. To test their product against the original design criteria and with the intended user. To take into account others' views. 		label, drawing, aesthetics, function, pattern pieces
Year Group 5 & 6	Term	Topic -	Area of Design & Technology	Skills	Knowledge	Vocabulary
Cycle A	Autumn 2	Combining different fabric shapes. Linked to Christmas	Textiles	<p>Designing</p> <ul style="list-style-type: none"> To generate innovative ideas by carrying out research including surveys, interviews and questionnaires. To develop, model and communicate ideas through talking, drawing, templates, mock-ups and prototypes and, where appropriate, computer-aided design. 	<p>Technical Knowledge</p> <ul style="list-style-type: none"> To know how to undertake research appropriate to the project. To know how to accurately meet the needs of a given user by identifying specific design criteria. To know that a 3-D textile product can be made from a combination of accurately made 	hem, template, pattern pieces, name of textiles and fastenings used, pins, needles, thread, pinking shears, fastenings, iron transfer,



			<ul style="list-style-type: none"> • To design purposeful, functional, appealing products for the intended user that are fit for purpose based on a simple design specification. <p>Making</p> <ul style="list-style-type: none"> • To produce detailed lists of equipment and fabrics relevant to their tasks. • To formulate step-by-step plans and, if appropriate, allocate tasks within a team. • To join fabric using at least two joining stitches other than a running stitch. • To embellish fabric using at least one embroidery stitch, such as stem stitch or satin stitch. • To select from and use a range of tools and equipment to make products that are accurately assembled and well finished. Work within the constraints of time, resources and cost. <p>Evaluating</p> <ul style="list-style-type: none"> • To investigate and analyse textile products linked to their final product. • To compare the final product 	<p>pattern pieces, fabric shapes and different fabrics.</p> <ul style="list-style-type: none"> • To know that fabrics can be strengthened, stiffened and reinforced where appropriate. • To know and use technical vocabulary appropriate to the project. • To know how to continually assess and adapt the product based on the intended user. • To know about important developments and people appropriate to the project. 	<p>paper design, criteria, annotate, design decisions, functionality, innovation, authentic, user, purpose, evaluate, mock-up, prototype seam, seam allowance, wadding, reinforce, right side, wrong side,</p>
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				<p>to the original design specification.</p> <ul style="list-style-type: none"> • To test products with intended user and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose. • To consider the views of others to improve their work. 		
	<p>Spring 2</p>	<p>Pulleys and gears. Linked to Science (forces).</p>	<p>Mechanical Systems</p>	<p>Designing</p> <ul style="list-style-type: none"> • To generate innovative ideas by carrying out research using surveys, interviews, questionnaires and web-based resources. • To develop a simple design specification to guide their thinking. • To develop and communicate ideas through discussion, annotated drawings, exploded drawings and drawings from different views. <p>Making</p> <ul style="list-style-type: none"> • To produce detailed lists of tools, equipment and materials. Formulate step-by-step plans and, if appropriate, allocate tasks within a team. 	<p>Technical Knowledge</p> <ul style="list-style-type: none"> • To know how to undertake research appropriate to the project. • To know how to accurately meet the needs of a given user by identifying specific design criteria. • To know that mechanical and electrical systems have an input, process and an output. • To know how gears and pulleys can be used to speed up, slow down or change the direction of movement. • To know and use technical vocabulary relevant to the project. • To know how to continually assess and adapt the product based on the intended user. 	<p>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,</p>



				<ul style="list-style-type: none"> • To use ratio in their project to change oscillation speed using either gears or pulleys. • To select from and use a range of tools and equipment to make products that that are accurately assembled and well finished. • To work within the constraints of time, resources and cost. <p>Evaluating</p> <ul style="list-style-type: none"> • To compare the final product to the original design specification. • To test products with intended user and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose. • To consider the views of others to improve their work. • To investigate famous manufacturing and engineering companies relevant to the project. 	<ul style="list-style-type: none"> • To know about important developments and people appropriate to the project. 	<p>innovation, authentic, user, purpose, design specification, design brief</p>
	<p>Summer 2</p>	<p>Celebrating culture and seasonality. Linked to healthy living</p>	<p>Food and Nutrition</p>	<p>Designing</p> <ul style="list-style-type: none"> • To generate innovative ideas through research and discussion with peers and adults to develop a design brief and criteria for a design specification. 	<p>Technical Knowledge</p> <ul style="list-style-type: none"> • To know how to undertake research appropriate to the project. • To know how to accurately meet the needs of a given user by 	<p>ingredients, yeast, dough, bran, flour, wholemeal,</p>



			<ul style="list-style-type: none"> • To explore a range of initial ideas, and make design decisions to develop a final product linked to user and purpose. • To use words, annotated sketches and information and communication technology as appropriate to develop and communicate ideas. <p>Making</p> <ul style="list-style-type: none"> • To write a step-by-step recipe, including a list of ingredients, equipment and utensils • To select and use appropriate utensils and equipment accurately to measure and combine appropriate ingredients. • To use combining techniques appropriate to make a dough such as kneading or rubbing. • To safely use a rolling pin to roll out their product. • To make, decorate and present the food product appropriately for the intended user and purpose. <p>Evaluating</p>	<p>identifying specific design criteria.</p> <ul style="list-style-type: none"> • To know how to use utensils and equipment including heat sources to prepare and cook food. • To know how to write and present recipes, including amounts and measurements appropriate to the project. • To know when to use specific combining techniques for which ingredients. • To know about seasonality in relation to food products and the source of different food products. • To know and use relevant technical and sensory vocabulary. • To know how to continually assess and adapt the product based on the intended user. • To know about important developments and people appropriate to the project. 	<p>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,</p>
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				<ul style="list-style-type: none"> • To carry out sensory evaluations of a range of relevant products and ingredients. Record the evaluations using e.g. tables/graphs/charts such as star diagrams. • To evaluate the final product with reference back to the design brief and design specification, taking into account the views of others when identifying improvements. 		shape, sprinkle, crumble, design specification, innovative, research, evaluate, design brief.
Year Group 5 & 6 Cycle B	Term	Topic -	Area of Design & Technology	• Skills	• Knowledge	Vocabulary
	Autumn 2	Celebrating culture and seasonality. Linked to Christmas	Food and nutrition	Designing <ul style="list-style-type: none"> • To generate innovative ideas through research and discussion with peers and adults to develop a design brief and criteria for a design specification. • To explore a range of initial ideas, and make design decisions to develop a final product linked to user and purpose. • To use words, annotated sketches and information and 	Technical Knowledge <ul style="list-style-type: none"> • To know how to undertake research appropriate to the project. • To know how to accurately meet the needs of a given user by identifying specific design criteria. • To know how to use utensils and equipment including heat sources to prepare and cook food. • To know how to write and present recipes, including amounts and 	combine, fold, knead, stir, pour, mix, rubbing in, whisk, beat, roll out, shape, sprinkle, crumble,



			<p>communication technology as appropriate to develop and communicate ideas.</p> <p>Making</p> <ul style="list-style-type: none"> • To write a step-by-step recipe, including a list of ingredients, equipment and utensils • To select and use appropriate utensils and equipment accurately to measure and combine appropriate ingredients. • To use a whisk to fold, beat or whisk an element of their product. • To use combining techniques appropriate to the recipe such as kneading, mixing or rubbing. • To make, decorate and present a savoury product appropriately for the intended user and purpose. <p>Evaluating</p> <ul style="list-style-type: none"> • To carry out sensory evaluations of a range of relevant products and ingredients. Record the evaluations using e.g. tables/graphs/charts such as star diagrams. • To evaluate the final product 	<p>measurements appropriate to the project.</p> <ul style="list-style-type: none"> • To know when to use specific combining techniques for which ingredients. • To know about seasonality in relation to food products and the source of different food products. • To know and use relevant technical and sensory vocabulary. 	<p>design specification, innovative, research, evaluate, design brief. wholemeal, unleavened, baking soda, spice, herbs, fat, sugar, carbohydrate, protein, vitamins, nutrients, nutrition, healthy, varied, gluten, dairy, allergy, intolerance, savoury, source, seasonality, utensils, ingredients, yeast, dough, bran,</p>
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				with reference back to the design brief and design specification, taking into account the views of others when identifying improvements.		flour,
	Spring 2	Frame structures. Link to History – Anderson shelters	Structures	<p>Designing</p> <ul style="list-style-type: none"> • To carry out research into user needs and existing products, using surveys, interviews, questionnaires and web-based resources. • To develop a simple design specification to guide the development of their ideas and products, taking account of constraints including time, resources and cost. • To generate, develop and model innovative ideas, through discussion, prototypes and annotated sketches. <p>Making</p> <ul style="list-style-type: none"> • To formulate a clear plan, including a step-by-step list of what needs to be done and lists of resources to be used. 	<p>Technical Knowledge</p> <ul style="list-style-type: none"> • To know how to undertake research appropriate to the project. • To know how to accurately meet the needs of a given user by identifying specific design criteria. • To know how to strengthen, stiffen and reinforce 3-D frameworks. • To know how triangulation can aide in the making of frame structures. • To know and use technical vocabulary relevant to the project. • To know how to continually assess and adapt the product based on the intended user. • To know about important developments and people appropriate to the project. 	frame structure, stiffen, strengthen, reinforce, triangulation, stability, shape, join, temporary, permanent, design brief, design specification, prototype, annotated sketch, purpose, user, innovation, research, functional



				<ul style="list-style-type: none"> • To competently select from and use appropriate tools to accurately measure, mark out, cut, shape and join construction materials to make frameworks. • To use at least 2 joining techniques appropriate to the material in their product. • To use finishing and decorative techniques suitable for the product they are designing and making. <p>Evaluating</p> <ul style="list-style-type: none"> • To investigate and evaluate a range of existing frame structures. • To critically evaluate their products against their design specification, intended user and purpose, identifying strengths and areas for development, and carrying out appropriate tests. • To research key events and individuals relevant to frame structures. 	<ul style="list-style-type: none"> • To know how to continually assess and adapt the product based on the intended user. • To know about important developments and people appropriate to the project. 	
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	<p>Summer 2</p>	<p>Monitoring and control. Linked to Science (electricity) and Computing.</p>	<p>Electrical systems</p>	<p>Designing</p> <ul style="list-style-type: none"> • To use research to develop a design specification for a functional product that responds automatically to changes in the environment. Take account of constraints including time, resources and cost. • To generate and develop innovative ideas and share and clarify these through discussion. • To communicate ideas through annotated sketches, pictorial representations of electrical circuits or circuit diagrams. <p>Making</p> <ul style="list-style-type: none"> • To formulate a step-by-step plan to guide making, listing tools, equipment, materials and components. • To competently select and accurately assemble materials, and securely connect electrical components to produce a reliable, functional product. • To create and modify a computer control program to enable an electrical product to work automatically in response 	<p>Technical Knowledge</p> <ul style="list-style-type: none"> • To know how to undertake research appropriate to the project. • To know how to accurately meet the needs of a given user by identifying specific design criteria. • To know and use electrical systems in their products. • To know the use of computer control systems in products. • To know how to apply their knowing of computing to program, monitor and control their products. • To know and use technical vocabulary relevant to the project. • To know how to continually assess and adapt the product based on the intended user. • To know about important developments and people appropriate to the project. 	<p>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</p>
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			<p>to changes in the environment.</p> <ul style="list-style-type: none"> •To create a programme which uses selection. •To design a project that uses inputs and outputs on a controllable device. <p>Evaluating</p> <ul style="list-style-type: none"> • To continually evaluate and modify the working features of the product to match the initial design specification. • To test the system to demonstrate its effectiveness for the intended user and purpose. • To investigate famous inventors who developed ground-breaking electrical systems and components. 		
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