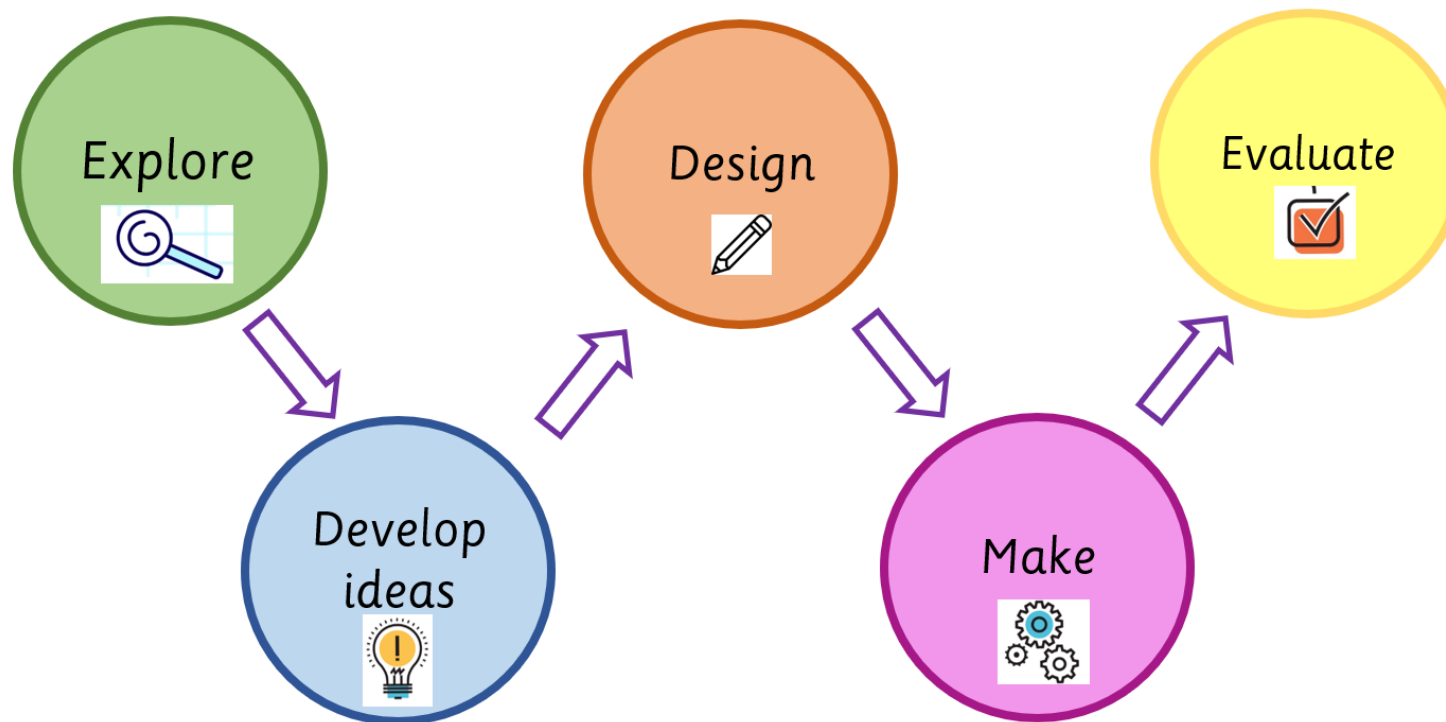




Design & Technology overview

Key concepts



Blacko Primary School

Be Respectful. Be Collaborative. Be Ambitious.

Design Technology Curriculum

	Autumn Term	Spring Term			Summer Term	
EYFS	EYFS Expressive Arts and Design early learning goal. During their time in early years, children will have used and explored a variety of materials, tools and techniques which allow them to experiment with design, texture, form function. They will have engaged with designing, making and evaluating in a way that develops their cutting and joining techniques, as well as their ability to modify and adapt their work. These skills, knowledge and experiences underpin the learning that takes place in Year 1 and across the KS1 and KS2 curriculum.					
	Creation Station	Construction Kits	Kitcamp		Crates, den building and boxes	Playdough
	Creative Station: Available in the classroom in continuous provision. Mixture of adult-led and child-led activities happen here. A range of supplies to make, improve and enhance creations are readily available.	Construction Kits: Available in the classroom in continuous provision. From small wooden blocks, Duplo to Kapla and Lego. Usually (but not only) to make imaginative structures and buildings.	Kit Camp: Kitcamp is a loose parts resource that offers children many inspirational and playful learning opportunities. Through construction & playing children can develop their spatial awareness skills and get physically active by building and negotiating their play environments. Children learn to work as a team, negotiating to build their own environments and acting out scenarios within these environments. Kitcamp encourages social interaction and role play, stimulating executive function development in children.	Crates, den building and boxes: Available outside in continuous provision. To particularly support gross motor construction, offering versatility and open-ended opportunities.	Playdough: Available in the classroom in continuous provision. A range of small handheld equipment to manipulate the dough into a range of imaginative sculptures. Children use playdough already made and sometimes help an adult to make it. Children will be offered a range of sensory experiences, expressing and representing ideas that they can use to support play.	Cooking: The children will have regular opportunities each half term to follow different recipes to bake and cook a variety of different dishes. What we cook will depend on our current topic and children’s interests. Children will be taught how to safely prepare food and use their listening skills to follow simple instructions.
	creation, design, plan, make, tape, ideas, scissors, like, don’t like.	imagination, plan, make, build, ideas, like, don’t like.	Kitcamp, build, make, like, don’t like	imagination, plan, make, ideas, boxes, building, crate, like, don’t like.	playdough, make, like, don’t like.	cut, stir, pour, bake, cook, instruction, recipe.

	Autumn Term	Spring Term	Summer Term
Class 2 Year A	Textiles – Weaving <u>National Curriculum objectives:</u> Explore and evaluate a range of existing products Design purposeful, functional, appealing products for themselves and other users based on design criteria Generate, develop, model and communicate their ideas. through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology Select from and use a range of tools and equipment to perform practical tasks. Select from and use a wide range of materials and components according to their characteristics. Evaluate their ideas and products against design criteria. <u>Vocabulary:</u> explore, develop, design, make, evaluate weave, weaving, pattern, over, under, material, design, product, evaluate, technique, strip, texture, flexible, stiff, ideas, purpose, user, colour, choose, suitable, label, plan, drawing, criteria, neat, strong, assemble, tool, equipment, follow, improve, compare, successful, reflect	Mechanical Systems – Linkages <u>National Curriculum objectives:</u> Explore and evaluate a range of existing products Design purposeful, functional, appealing products for themselves and other users based on design criteria Generate, develop, model and communicate their ideas. through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology Select from and use a range of tools and equipment to perform practical tasks Select from and use a wide range of materials and components according to their characteristics. Evaluate their ideas and products against design criteria Technical knowledge: explore and use mechanisms in their product <u>Vocabulary:</u> explore, develop, design, make, evaluate mechanism, linkage, pivot, push, pull, movement, output, split pin, strip, material, assemble, up, down, side-to-side, evaluate, ideas, design, product, purpose, audience, choose, suitable, label, sketch, plan, criteria, smooth, secure, measure, cut, build, tool, equipment, decorate, construct, test, compare, reflect, improve, successful, adapt, apply	Food Technology – Preparing Fruits and Vegetables <u>National Curriculum objectives:</u> Use the basic principles of a healthy and varied diet to prepare dishes Understand where food comes from. Design appealing food products for themselves and other users based on design criteria Generate, develop, model and communicate their ideas through talking and drawing Select from and use a range of tools and equipment to perform practical tasks Select from and use a range of ingredients according to their characteristics Evaluate their ideas and products against design criteria peeling chopping slicing <u>Vocabulary:</u> explore, develop, design, make, evaluate fruit, healthy, diet, food group, grow, plant, tree, ripe, peel, slice, chop, texture, flavour, colour, shape, soft, juicy, ingredients, design, choose, label, diagram, plan, fruit salad, prepare, mix, combine, hygiene, clean, safe, equipment, utensil, taste, appearance, evaluate, compare, sweet, sour, fresh, improve, adapt, change, better, reflect

Key Learning	Lesson 1: Explore OL: <i>I can recall prior learning and explore how woven products are made using an over/under pattern.</i> Key Skills: Observing, identifying patterns, discussing, using technical vocabulary, recalling knowledge Key Vocabulary: <i>weave, weaving, pattern, over, under, material, design, product, evaluate</i> - Retrieve prior knowledge of materials and basic making skills. - Introduce key vocabulary. - Explore a range of woven products (e.g. mats, baskets). - Discuss how they are made, identifying the <i>over/under</i> pattern. - Begin simple evaluations of appearance and function. Lesson 2: Develop OL: <i>I can use the over/under technique to create weaving with different materials.</i> Key Skills: Weaving, experimenting, manipulating materials, evaluating Key Vocabulary: <i>over, under, technique, weave, strip, material, texture, flexible, stiff</i> - Introduce the <i>over/under</i> weaving technique explicitly. - Practise weaving using a variety of materials (paper strips, fabric, card, wool). - Experiment with different widths and textures. - Evaluate which materials are easiest or most effective and explain why. Lesson 3: Design OL: <i>I can generate ideas for a woven placemat, choosing suitable materials and colours.</i> Key Skills: Generating ideas, planning, selecting materials, decision-making Key Vocabulary: <i>ideas, design, purpose, user, colour, material, choose, suitable</i> - Review successful materials and techniques from Lesson 2. - Generate ideas for a woven placemat. - Consider purpose, appearance, and user. - Begin selecting appropriate materials and colours.	Lesson 1: Explore OL: <i>I can recall prior learning and begin to explore the effects of push and pull movement.</i> Key Skills: Observing, discussing, identifying movement, using technical vocabulary, recalling knowledge Key Vocabulary: <i>mechanism, linkage, pivot, push, pull, movement, output</i> - Retrieve prior learning about moving parts and mechanisms. - Introduce key vocabulary. - Investigate a range of pre-made linkages. - Explore how pushing and pulling creates movement (output). Lesson 2: Develop OL: <i>I can create simple linkages using pivots and explore how different movements are made.</i> Key Skills: Constructing, experimenting, assembling, evaluating Key Vocabulary: <i>pivot, linkage, split pin, strip, material, assemble, movement, up, down, side-to-side, evaluate</i> - Use strips of different materials and split pins to make linkages. - Practise creating a range of movements (e.g. up/down, side-to-side). - Explore how pivots change movement. - Evaluate which materials and designs are most effective. Lesson 3: Develop OL: <i>I can generate ideas for a product that uses a linkage with purposeful movement.</i> Key Skills: Generating ideas, planning, making design decisions, problem-solving Key Vocabulary: <i>ideas, design, product, movement, purpose, audience, choose, suitable</i> - Review effective designs from the skills lesson. - Generate ideas for a greetings card with a moving linkage. - Consider purpose, audience, and type of movement.	Lesson 1: Explore (Health & Nutrition) OL: <i>I can recall prior learning and begin to understand where fruit comes from and why it is healthy.</i> Key Skills: Identifying, discussing, classifying, using vocabulary, recalling knowledge Key Vocabulary: <i>fruit, healthy, diet, food group, grow, plant, tree, ripe</i> - Retrieve prior learning about food and basic preparation. - Introduce key vocabulary - Introduce food groups and the importance of a healthy, varied diet. - Explore different fruits, including how and where they grow. Lesson 2: Develop OL: <i>I can explore different fruits and practise preparing them safely.</i> Key Skills: Observing, comparing, preparing food, handling tools safely Key Vocabulary: <i>peel, slice, chop, texture, flavour, colour, shape, soft, juicy</i> - Explore and taste fruits in terms of colour, shape, texture, and flavour. - Practise peeling, slicing, and chopping safely. - Discuss preferences and differences between fruits. Lesson 3: Design OL: <i>I can choose ingredients and create a labelled design for my fruit salad.</i> Key Skills: Selecting, planning, drawing, labelling Key Vocabulary: <i>ingredients, design, choose, label, diagram, plan, fruit salad</i> - Create a list of chosen fruits for a fruit salad. - Draw a labelled exploded diagram of the design. - Consider variety and balance of ingredients. Lesson 4: Make OL: <i>I can make a fruit salad safely by following my plan and food hygiene rules.</i> Key Skills: Cutting, preparing, assembling, following instructions, hygiene Key Vocabulary: <i>prepare, mix, combine, hygiene, clean, safe, equipment, utensil</i> - Make the fruit salad following the design. - Use tools safely to peel, slice, and chop. - Follow basic food hygiene procedures (e.g. clean hands and surfaces).
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	Lesson 4: Design OL: <i>I can create a labelled design for my woven placemat showing materials and pattern.</i> Key Skills: Drawing, labelling, planning, communicating ideas Key Vocabulary: <i>label, design, plan, pattern, material, drawing, criteria, neat, strong</i> • Produce a clear, labelled design. • Draw and colour the design accurately. • Label chosen materials and weaving pattern. • Outline simple design criteria (e.g. strong, colourful, neat). Lesson 5: Make OL: <i>I can create a woven placemat using the over/under technique and my design plan.</i> Key Skills: Weaving, assembling, selecting tools, following a plan, adapting Key Vocabulary: <i>weave, over, under, assemble, tool, equipment, technique, follow, improve</i> • Create the woven placemat following the design. • Select appropriate tools, equipment, and materials. • Apply the <i>over/under</i> technique carefully. • Make adjustments during the process where needed. Lesson 6: Evaluate, Improve & Apply OL: <i>I can improve my woven product and explain how it could be used or adapted.</i> Key Skills: Reflecting, improving, adapting, applying knowledge Key Vocabulary: <i>evaluate, compare, criteria, design, product, successful, improve, reflect, adapt, use</i> • Evaluate the finished placemat against design criteria. • Identify strengths and areas for improvement. • Make simple adaptations or improvements where possible. • Discuss how the product could be used or improved for different users or purposes. • Complete an end-point assessment of skills and knowledge.	Lesson 4: Design OL: <i>I can design and label a greetings card that includes a working linkage mechanism.</i> Key Skills: Drawing, labelling, planning, communicating ideas Key Vocabulary: <i>design, label, sketch, plan, mechanism, linkage, material, criteria, smooth, secure</i> • Sketch/draw and label a clear design. • Show how the linkage will work. • Select and label materials. • Create simple design criteria (e.g. smooth movement, secure pivot). Lesson 5: Make OL: <i>I can construct a greetings card using a linkage mechanism that works as intended.</i> Key Skills: Measuring, cutting, assembling, building, following a plan Key Vocabulary: <i>measure, cut, assemble, build, tool, equipment, mechanism, linkage, decorate, construct</i> • Follow design to create the greetings card. • Select tools, materials, and equipment appropriately. • Build the linkage using split pins. • Assemble and decorate, ensuring the movement works effectively. Lesson 6: Evaluate, Improve & Apply OL: <i>I can improve my product and explain how my linkage design could be used or adapted.</i> Key Skills: Testing, evaluating, reflecting, improving, applying knowledge Key Vocabulary: <i>evaluate, test, compare, product, design, criteria, reflect, improve, successful, adapt, apply</i> • Test how well the linkage works. • Compare the finished product with the design criteria and labelled design. • Identify strengths and areas for improvement. • Make simple adaptations or suggest improvements. • Discuss how the mechanism could be used in other products. • Complete an end-point assessment of skills and knowledge.	Lesson 5: Evaluate OL: <i>I can evaluate my fruit salad based on taste and appearance.</i> Key Skills: Tasting, evaluating, describing, reflecting Key Vocabulary: <i>taste, appearance, evaluate, compare, sweet, sour, fresh, juicy</i> • Evaluate the fruit salad against the design. • Discuss presentation and taste. • Identify what worked well. Lesson 6: Evaluate, Improve & Apply OL: <i>I can suggest improvements to my fruit salad and apply my learning to new ideas.</i> Key Skills: Reflecting, improving, adapting, applying knowledge Key Vocabulary: <i>improve, adapt, change, better, reflect, design, ingredients, combine</i> • Suggest adaptations or improvements (e.g. different fruit combinations). • Reflect on what could be changed next time. • Apply learning to suggest other healthy fruit-based dishes. • Complete an end-point assessment of skills and knowledge.
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Possible Resources	Books and other products with weaving examples.	Books and other products with lever and linkage mechanisms	Range of fresh fruit and vegetables
	Card/cardboard, weaving template and patterns Masking tape, tape, stick glue Long fabric strips, wool, different materials Left/right-handed scissors, cutting mats, finishing media and materials	Lever and linkage teaching aids card strips, card rectangles, paper, masking tape, paper fasteners, paper binders, stick glue Left/right-handed scissors, cutting mats, card drill, finishing media and materials	Chopping boards, knives, peelers, graters, skewers, juicers, spoons, jugs, plates, bowls, aprons, plastic table covers, hand washing and washing-up facilities Yogurt making machine or blender, if appropriate

	Autumn Term	Spring Term	Summer Term
Class 2 Year B	Structures – Marble Run <u>National Curriculum objectives:</u> Explore and evaluate a range of existing products Design purposeful, functional, appealing products for themselves and other users based on design criteria Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology Select from and use a range of tools and equipment to perform practical tasks Select from and use a wide range of materials and components according to their characteristics Evaluate their ideas and products against design criteria Technical knowledge: build structures, exploring how they can be made stronger, stiffer and more stable <u>Vocabulary:</u> explore, develop, design, make, evaluate mechanism, linkage, pivot, push, pull, movement, output, split pin, strip, material, assemble, up, down, side-to-side, evaluate, ideas, design, product, purpose, audience, choose, suitable, label, sketch, plan, criteria, smooth, secure, measure, cut, build, tool, equipment, decorate, construct, test, compare, reflect, improve, successful, adapt, apply	Mechanical Systems – Wheels and Axles <u>National Curriculum objectives:</u> Explore and evaluate a range of existing products Design purposeful, functional, appealing products for themselves and other users based on design criteria Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology Select from and use a range of tools and equipment to perform practical tasks Select from and use a wide range of materials and components according to their characteristics Evaluate their ideas and products against design criteria Technical knowledge: explore and use mechanisms in their product <u>Vocabulary:</u> explore, develop, design, make, evaluate mechanism, axle, chassis, wheel, vehicle, movement, roll, measure, mark, cut, dowel, length, attach, fix, washer, tool, ideas, design, purpose, user, group, choose, suitable, label, sketch, plan, criteria, stable, strong, build, construct, assemble, join, equipment, decorate, evaluate, test, compare, product, improve, adapt, successful	Food Technology – dips and crudites <u>National Curriculum objectives:</u> Use the basic principles of a healthy and varied diet to prepare dishes Understand where food comes from. Design appealing food products for themselves and other users based on design criteria Generate, develop, model and communicate their ideas through talking and drawing Select from and use a range of tools and equipment to perform practical tasks Select from and use a range of ingredients according to their characteristics Evaluate their ideas and products against design criteria * peeling * chopping * slicing * Stirring <u>Vocabulary:</u> explore, develop, design, make, evaluate vegetable, healthy, diet, food group, grow, plant, crudites, dip, recipe, measure, stir, peel, slice, chop, texture, flavour, colour, shape, hygiene, ideas, choose, vote, preference, ingredients, design, label, diagram, plan, mix, prepare, utensil, equipment, safe, evaluate, taste, compare, improve, adapt, presentation

Key Learning	Lesson 1: Explore OL: <i>I can recall prior learning and begin to explore the effects of push and pull movement.</i> Key Skills: Observing, discussing, identifying movement, using technical vocabulary, recalling knowledge Key Vocabulary: <i>mechanism, linkage, pivot, push, pull, movement, output</i> - Retrieve prior learning about moving parts and mechanisms. - Introduce key vocabulary. - Investigate a range of pre-made linkages. - Explore how pushing and pulling creates movement (output). Lesson 2: Develop OL: <i>I can create simple linkages using pivots and explore how different movements are made.</i> Key Skills: Constructing, experimenting, assembling, evaluating Key Vocabulary: <i>pivot, linkage, split pin, strip, material, assemble, movement, up, down, side-to-side, evaluate</i> - Use strips of different materials and split pins to make linkages. - Practise creating a range of movements (e.g. up/down, side-to-side). - Explore how pivots change movement. - Evaluate which materials and designs are most effective. Lesson 3: Develop OL: <i>I can generate ideas for a product that uses a linkage with purposeful movement.</i> Key Skills: Generating ideas, planning, making design decisions, problem-solving Key Vocabulary: <i>ideas, design, product, movement, purpose, audience, choose, suitable</i> - Review effective designs from the skills lesson. - Generate ideas for a greetings card with a moving linkage. - Consider purpose, audience, and type of movement. Lesson 4: Design OL: <i>I can design and label a greetings card that includes a working linkage mechanism.</i> Key Skills: Drawing, labelling, planning, communicating ideas Key Vocabulary: <i>design, label, sketch, plan, mechanism, linkage, material, criteria, smooth, secure</i> - Sketch/draw and label a clear design. - Show how the linkage will work.	Lesson 1: Explore OL: <i>I can recall prior learning and explore how vehicles move and identify their key parts.</i> Key Skills: Observing, identifying features, discussing, using technical vocabulary, recalling knowledge Key Vocabulary: <i>mechanism, axle, chassis, wheel, vehicle, movement, roll</i> - Retrieve prior learning about moving objects and simple mechanisms. - Introduce key vocabulary - Explore a range of toy cars and vehicles. - Identify key parts (wheel, axle, chassis). - Discuss how vehicles move (e.g. rolling, turning). Lesson 2: Develop OL: <i>I can practise measuring, marking and cutting materials to create parts for a vehicle.</i> Key Skills: Measuring, marking, cutting, assembling, using tools safely Key Vocabulary: <i>measure, mark, cut, dowel, length, attach, fix, washer, tool</i> - Learn how to measure, mark, and cut dowel safely. - Practise attaching wheels to axles (using washers if needed). - Explore how different choices affect movement. Lesson 3: Develop OL: <i>I can work with others to generate ideas for a moving vehicle.</i> Key Skills: Collaborating, generating ideas, planning, problem-solving Key Vocabulary: <i>ideas, design, vehicle, purpose, user, group, choose, suitable</i> - Work in groups to generate ideas for a vehicle. - Consider purpose, user, and features. - Begin to decide on materials and design features. Lesson 4: Design OL: <i>I can create and label a design for a vehicle using agreed criteria.</i> Key Skills: Drawing, labelling, planning, communicating ideas Key Vocabulary: <i>design, label, sketch, plan, axle, chassis, wheel, criteria, stable, strong</i> - Establish design criteria as a group (e.g. moves smoothly, stable). - Draw, colour, and label a vehicle design. - Show key parts (wheels, axles, chassis) clearly.	Lesson 1: Explore (Health & Nutrition) OL: <i>I can recall prior learning and explore different vegetables and how they are used in a healthy diet.</i> Key Skills: Identifying, discussing, tasting, classifying, using technical vocabulary, recalling knowledge Key Vocabulary: <i>vegetable, healthy, diet, food group, grow, plant, crudites, dip</i> - Retrieve prior learning about food groups and healthy eating. - Introduce key vocabulary - Revise food groups by focusing on vegetables. - Explore where and how vegetables grow. - Taste test a selection of dips and evaluate preferences. Lesson 2: Develop OL: <i>I can explore and prepare vegetables safely for crudites.</i> Key Skills: Observing, preparing food, using tools safely, following hygiene rules Key Vocabulary: <i>peel, slice, chop, stir, texture, flavour, colour, shape, hygiene</i> - Explore vegetables in terms of colour, shape, and texture. - Practise peeling, slicing, chopping, and stirring. - Learn and apply good food hygiene practices. Lesson 3: Develop OL: <i>I can generate ideas for a dip and crudites based on class preferences.</i> Key Skills: Decision-making, discussing, planning, evaluating choices Key Vocabulary: <i>ideas, choose, vote, preference, ingredients, dip, crudites</i> - Discuss and review results of dip taste tests. - Vote as a class to select a preferred dip. - Begin identifying ingredients needed. Lesson 4: Design OL: <i>I can design a dip and crudites selection with labelled ingredients.</i> Key Skills: Drawing, labelling, planning, organising ideas Key Vocabulary: <i>design, recipe, ingredients, label, diagram, plan, measure</i> - Write a list of ingredients for the chosen dip and crudites. - Draw a labelled exploded diagram of the dish. - Consider presentation and balance of foods.
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	• Select and label materials. • Create simple design criteria (e.g. smooth movement, secure pivot). Lesson 5: Make OL: <i>I can construct a greetings card using a linkage mechanism that works as intended.</i> Key Skills: Measuring, cutting, assembling, building, following a plan Key Vocabulary: <i>measure, cut, assemble, build, tool, equipment, mechanism, linkage, decorate, construct</i> • Follow design to create the greetings card. • Select tools, materials, and equipment appropriately. • Build the linkage using split pins. • Assemble and decorate, ensuring the movement works effectively. Lesson 6: Evaluate, Improve & Apply OL: <i>I can improve my product and explain how my linkage design could be used or adapted.</i> Key Skills: Testing, evaluating, reflecting, improving, applying knowledge Key Vocabulary: <i>evaluate, test, compare, product, design, criteria, reflect, improve, successful, adapt, apply</i> • Test how well the linkage works. • Compare the finished product with the design criteria and labelled design. • Identify strengths and areas for improvement. • Make simple adaptations or suggest improvements. • Discuss how the mechanism could be used in other products. • Complete an end-point assessment of skills and knowledge.	Lesson 5: Make OL: <i>I can construct a moving vehicle using appropriate materials and techniques.</i> Key Skills: Cutting, assembling, constructing, selecting tools, teamwork Key Vocabulary: <i>build, construct, assemble, join, attach, tool, equipment, decorate</i> • Work in groups to make the vehicle. • Select appropriate materials and tools. • Use joining techniques to attach wheels and axles. • Add decorative features (using computing where appropriate). Lesson 6: Evaluate, Improve & Apply OL: <i>I can evaluate my vehicle and suggest improvements to make it work better.</i> Key Skills: Testing, evaluating, reflecting, improving, collaborating Key Vocabulary: <i>evaluate, test, compare, product, design, criteria, improve, adapt, successful, movement</i> • Test how well the vehicle moves. • Compare with design criteria and labelled design. • Identify strengths and areas for improvement. • Suggest or make adaptations. • Reflect on teamwork and the final product. • Complete an end-point assessment of skills and knowledge.	Lesson 5: Make OL: <i>I can follow a recipe and prepare food safely to make a dip and crudites.</i> Key Skills: Measuring, cutting, mixing, following instructions, hygiene Key Vocabulary: <i>measure, stir, mix, prepare, recipe, utensil, equipment, safe</i> • Follow a simple recipe to make the class dip. • Prepare crudites by peeling and slicing vegetables. • Use tools safely and follow hygiene rules. Lesson 6: Evaluate, Improve & Apply OL: <i>I can evaluate my food product and suggest ways to improve it.</i> Key Skills: Tasting, evaluating, reflecting, improving, applying knowledge Key Vocabulary: <i>evaluate, taste, compare, design, improve, adapt, ingredients, presentation</i> • Evaluate the dip and crudites against the design. • Discuss taste and presentation. • Suggest adaptations or improvements (e.g. different vegetables or flavours). • Apply learning to suggest other healthy snack ideas. • Complete an end-point assessment of skills and knowledge.
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Possible Resources	Photographs and books containing various structures and mainly examples of marble runs Construction kits that can be used to construct freestanding structures e.g. marble runs. Paper, card, plastic sheet, paper and plastic straws, pipe cleaners reclaimed materials including small containers, card boxes. Cotton reels, string, masking tape pva glue, plasticine, left/right handed scissors, hole punch, stapler finishing media and materials	Selection of toy vehicles with differently fixed axles Card boxes, card, cotton reels, plastic tubing, dowel, clothes pegs, paper sticks/dowel, paper/plastic straws, card discs, mdf wheels, wooden wheels Single hole punch, card drill, cutting mat, masking tape, pva glue, paint, thin/thick paint brushes, felt tip pens, decorative paper, double sided sticky fixers, junior hacksaw, vice, left/right handed scissors	Vegetables, chickpeas, olive oil, lemon juice, yoghurt Chopping boards, knives, peelers, graters, juicers, spoons, jugs, mixing spoons, mashers, plates, bowls, aprons, plastic table covers, hand washing and washing-up facilities. Blender/food processor
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	Autumn Term	Spring Term	Summer Term
Class 3 Year A	Textiles – 2D Shape in to a 3D product: Christmas Tree Decoration <u>National Curriculum objectives:</u> Investigate and analyse a range of existing products Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groupsGenerate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design Select from and use a wider range of tools and equipment to perform practical tasks accurately Select from and use a wider range of materials and components according to their functional properties and aesthetic qualities Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work Understand how key events and individuals in design and technology have helped shape the world <u>Vocabulary:</u> explore, develop, design, make, evaluate textiles, thread, aesthetics, fabric, decoration, design, evaluate, needle, knot, running stitch, sew, binca, join, ideas, purpose, user, choose, suitable, label, diagram, plan, stitch, criteria, assemble, tool, finish, compare, product, improve, adapt, reflect	Mechanical Systems – Catapults <u>National Curriculum objectives:</u> Investigate and analyse a range of existing products Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groupsGenerate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design Select from and use a wider range of tools and equipment to perform practical tasks accurately Select from and use a wider range of materials and components according to their functional properties and aesthetic qualities Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work Understand how key events and individuals in design and technology have helped shape the world Technical knowledge: understand and use mechanical systems in their products – levers <u>Vocabulary:</u> explore, develop, design, make, evaluate mechanism, lever, fulcrum, base, load, effort, force, balance, join, fix, attach, stable, structure, elastic, energy, ideas, design, catapult, movement, purpose, choose, label, plan, criteria, build, construct, assemble, tool, equipment, test, measure, distance, evaluate, compare, improve, adapt, successful	Food Technology - vegetable soup <u>National Curriculum objectives:</u> Understand and apply the principles of a healthy and varied diet Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed. Generate, develop, model and communicate their ideas through discussion, annotated sketches and cross-sectional and exploded diagrams Select from and use a wider range of tools and equipment to perform practical tasks accurately Select from and use a wider range of ingredients according to their characteristics and aesthetic qualities Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work peeling chopping slicing heat source <u>Vocabulary:</u> explore, develop, design, make, evaluate seasonal, savoury, recipe, measure, heat source, vegetable, ingredient, nutrition, taste, flavour, texture, preference, survey, research, soup, ingredients, choose, criteria, healthy, suitable, design, method, plan, steps, prepare, chop, cook, stir, hygiene, safe, evaluate, feedback, compare, improve, adapt, presentation

	Lesson 1: Explore OL: <i>I can recall prior learning and explore how textile products are made and evaluated.</i> Key Skills: Observing, discussing, identifying features, evaluating, recalling knowledge Key Vocabulary: <i>textiles, thread, aesthetics, fabric, decoration, design, evaluate</i> - Retrieve prior learning about materials and basic making skills. - Introduce key vocabulary - Explore and evaluate a range of textile decorations. - Discuss how they have been made (materials, joining, appearance). - Consider aesthetics (how they look) and purpose. Lesson 2: Develop OL: <i>I can practise basic sewing techniques to join textile materials.</i> Key Skills: Threading, sewing, assembling, evaluating Key Vocabulary: <i>needle, thread, knot, running stitch, sew, binca, fabric, join</i> - Learn to thread a needle and tie a knot. - Practise the running stitch using Binca or similar. - Apply sewing to different fabric swatches. - Evaluate which fabrics and techniques work best. Lesson 3: Develop OL: <i>I can generate ideas for a textile decoration based on design criteria.</i> Key Skills: Generating ideas, planning, decision-making, evaluating Key Vocabulary: <i>ideas, design, decoration, purpose, user, choose, suitable</i> - Review sewing skills and fabric choices. - Discuss ideas for a Christmas decoration. - Establish simple design criteria (e.g. attractive, secure, neat). - Select preferred ideas to develop.	Lesson 1: Explore OL: <i>I can recall prior learning and explore how levers work as a mechanism.</i> Key Skills: Observing, identifying components, discussing, using technical vocabulary, recalling knowledge Key Vocabulary: <i>mechanism, lever, fulcrum, base, load, effort, force, balance</i> - Retrieve prior learning about moving parts and mechanisms. - Introduce key vocabulary - Explore everyday examples of levers (e.g. arm throwing a ball). - Understand that a lever has a balance point (fulcrum). - Identify and label parts: <i>lever, fulcrum, load, effort/force.</i> Lesson 2: Develop OL: <i>I can explore ways to join materials to create a stable base and a working lever.</i> Key Skills: Constructing, experimenting, joining, problem-solving, evaluating Key Vocabulary: <i>join, fix, attach, base, stable, structure, elastic, energy</i> - Explore different ways to join materials. - Create a stable base and a lever with a fulcrum. - Investigate elastic bands as a source of potential energy. - Evaluate which methods create the most stable and effective structure. Lesson 3: Develop OL: <i>I can generate ideas for a catapult based on how levers and forces work.</i> Key Skills: Generating ideas, planning, collaborating, applying knowledge Key Vocabulary: <i>ideas, design, catapult, mechanism, force, movement, purpose, choose</i> - Review learning about levers and structures. - Generate ideas for a catapult design. - Consider how force and movement will be created. - Begin working in groups to select ideas.	Lesson 1: Explore (Health & Nutrition) OL: <i>I can recall prior learning and explore how vegetable soups can be healthy and where ingredients come from.</i> Key Skills: Identifying, discussing, evaluating, using technical vocabulary, recalling knowledge Key Vocabulary: <i>seasonal, savoury, recipe, measure, heat source, vegetable, ingredient, nutrition</i> - Retrieve prior learning about food groups, healthy eating, and food preparation. - Introduce key vocabulary - Explore and evaluate a selection of vegetable soups. - Discuss ingredients in terms of health and nutrition. - Explore where and how vegetables are grown. - Introduce the terms <i>savoury</i> and <i>seasonal</i>. Lesson 2: Develop OL: <i>I can taste and compare vegetable soups and gather information to help design my own recipe.</i> Key Skills: Tasting, comparing, researching, recording data Key Vocabulary: <i>taste, flavour, texture, preference, survey, research, seasonal, soup</i> - Taste-test a range of vegetable soups. - Compare flavours and textures. - Create & complete a simple survey for market research. - Research which vegetables are seasonal at this time of year. Lesson 3: Develop OL: <i>I can use research to decide on ingredients for a vegetable soup.</i> Key Skills: Decision-making, analysing information, planning Key Vocabulary: <i>ingredients, choose, criteria, seasonal, healthy, preference, suitable</i> - Review findings from surveys and research. - Identify ‘non-negotiable’ ingredients. - Consider health, seasonality, and preferences. - Begin shaping ideas for a recipe. Lesson 4: Design OL: <i>I can design a recipe for a vegetable soup that meets my criteria.</i> Key Skills: Planning, writing, organising ideas Key Vocabulary: <i>recipe, design, method, ingredients, measure, plan, steps</i> - Write a list of chosen ingredients. - Research and adapt a recipe that meets the criteria. - Outline key steps and measurements.
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	Lesson 4: Design OL: <i>I can design and label a textile decoration showing how it will be made.</i> Key Skills: Drawing, labelling, planning, communicating ideas Key Vocabulary: <i>design, label, diagram, plan, fabric, thread, stitch, criteria</i> • Create a labelled exploded diagram of the decoration. • Show materials, stitches, and construction. • Refer to design criteria. Lesson 5: Make OL: <i>I can create a textile decoration using sewing techniques and my design.</i> Key Skills: Sewing, assembling, selecting materials, following a plan Key Vocabulary: <i>sew, stitch, assemble, join, fabric, thread, tool, finish</i> • Make the decoration following the design. • Use sewing skills (running stitch) to join materials. • Select appropriate tools and fabrics. • Ensure the product is neat and secure. Lesson 6: Evaluate, Improve & Apply OL: <i>I can evaluate and improve my textile decoration and explain how it could be adapted.</i> Key Skills: Evaluating, reflecting, improving, adapting, applying knowledge Key Vocabulary: <i>evaluate, compare, product, design, criteria, improve, adapt, aesthetics, reflect</i> • Evaluate the finished decoration against design criteria and diagram. • Identify strengths and areas for improvement. • Suggest or make simple adaptations. • Discuss how the design could be changed for different occasions or users. • Complete an end-point assessment of skills and knowledge.	Lesson 4: Design OL: <i>I can design and label a catapult showing key components and design criteria.</i> Key Skills: Drawing, labelling, planning, communicating ideas Key Vocabulary: <i>design, label, plan, base, lever, fulcrum, load, criteria</i> • Establish design criteria for an effective catapult (e.g. strong, stable, long distance). • Create a labelled design in groups. • Identify key components: <i>base, fulcrum, lever, load.</i> Lesson 5: Make OL: <i>I can work with others to build a catapult using my design.</i> Key Skills: Building, assembling, joining, teamwork, following a plan Key Vocabulary: <i>build, construct, assemble, join, tool, equipment, mechanism, fix</i> • Work in groups to make the catapult. • Select appropriate materials, tools, and joining techniques. • Assemble the structure and mechanism carefully. Lesson 6: Evaluate, Improve & Apply OL: <i>I can test, evaluate and improve my catapult and explain how it works.</i> Key Skills: Testing, measuring, evaluating, improving, applying knowledge Key Vocabulary: <i>test, measure, distance, evaluate, compare, improve, adapt, successful</i> • Test catapults and measure distance of propulsion accurately. • Compare results with other groups and design criteria. • Evaluate strengths and areas for improvement. • Suggest or make adaptations to improve performance. • Explain how the lever mechanism works. • Complete an end-point assessment of skills and knowledge.	Lesson 5: Make OL: <i>I can prepare and cook a vegetable soup safely by following a recipe.</i> Key Skills: Preparing, measuring, cutting, cooking, following instructions, hygiene Key Vocabulary: <i>prepare, measure, chop, cook, heat source, stir, hygiene, safe</i> • Follow food hygiene procedures. • Prepare ingredients (e.g. peel, chop). • Measure and combine ingredients. • Cook the soup using a heat source with adult supervision. Lesson 6: Evaluate, Improve & Apply OL: <i>I can evaluate my soup and suggest improvements based on feedback.</i> Key Skills: Tasting, evaluating, reflecting, improving, applying knowledge Key Vocabulary: <i>evaluate, taste, feedback, compare, improve, adapt, presentation, flavour</i> • Taste-test the finished soup. • Create and use an evaluation sheet to gather feedback. • Compare results with original survey findings. • Suggest or make adaptations to improve taste or presentation. • Apply learning to suggest other recipes or variations. • Complete an end-point assessment of skills and knowledge.
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Possible Resources	Collection of textile products linked to the chosen product to be made	Photographs and books containing various catapult structures	Vegetables, cream
	Selection of fabrics and fastenings	Rubber bands, plastic bottle caps, straws, card, kitchen towel or craft foam, flat headed thumb tacks, double sided sticky fixers, hot glue gun, ruler, pencil.	Chopping boards, knives, peelers, graters, juicers, spoons, jugs, mixing spoons, mashers, plates, bowls, aprons, plastic table covers, hand washing and washing-up facilities.
	Left/right handed scissors, needles, thread, tape, fabric glue, pins, measuring tape	1cm square dowel, 5mm rounded dowel	Pots, pans, cooker.
	Items to use for finishing e.g. Fabric paints, threads, appliqué pieces, paints for printing, thin paint brushes	Junior hacksaw, vice, glass paper, g-clamps, bench hooks, cutting mats, left/right-handed scissors	Blender/food processor

	Autumn Term	Spring Term	Summer Term
Class 3 Year B	Structures – Shell Structures: Packaging <u>National Curriculum objectives:</u> Investigate and analyse a range of existing products Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groupsGenerate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional andexploded diagrams, prototypes, pattern pieces and computer-aided design Select from and use a wider range of tools and equipmentto perform practical tasks accurately Select from and use a wider range of materials and components according to their functional properties andaesthetic qualities Evaluate their ideas and products against their own designcriteria and consider the views of others to improve their work Understand how key events and individuals in design and technology have helped shape the world Technical knowledge: apply their understanding of how tostrengthen, stiffen and reinforce more complex structures <u>Vocabulary:</u> explore, develop, design, make, evaluate packaging, product, protect, material, purpose, environmental impact, design, net, tab, reinforce, fold, join, structure, attach, prototype, ideas, choose, suitable, features, label, diagram, plan, criteria, cut, assemble, construct, tool, equipment, decorate, graphics, evaluate, compare, improve, adapt, effective	Electrical Systems - Simple Circuits and Switches <u>National Curriculum objectives:</u> Investigate and analyse a range of existing products Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design Select from and use a wider range of tools and equipment to perform practical tasks accurately Select from and use a wider range of materials and components according to their functional propertiesand aesthetic qualities Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work Understand how key events and individuals in design and technology have helped shape the world Technical knowledge: understand and use electrical systems in their products <u>Vocabulary:</u> explore, develop, design, make, evaluate mechanism, electrical system, circuit, motor, movement, rotate, structure, design, battery, wire, connect, switch, power, ideas, ride, passenger, choose, suitable, label, diagram, plan, material, criteria, build, construct, assemble, tool, equipment, fix, test, evaluate, compare, product, improve, adapt, successful	Food Technology – cupcakes <u>National Curriculum objectives:</u> Understand and apply the principles of a healthy and varied diet Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. Generate, develop, model and communicate their ideas through discussion, annotated sketches and cross-sectional and exploded diagrams Select from and use a wider range of tools and equipment to perform practical tasks accurately Select from and use a wider range ingredients according to their characteristics and aesthetic qualities Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work weighing mixing heat source <u>Vocabulary:</u> explore, develop, design, make, evaluate sweet treat, cupcake, ingredient, healthy, nutrition, sugar, treat, evaluate, weigh, mix, heat source, taste, flavour, texture, appearance, decoration, preference, compare, ideas, ingredients, choose, design, criteria, suitable, recipe, plan, label, diagram, measure, bake, oven, hygiene, equipment, decorate, feedback, improve, adapt, presentation

Key Learning	Lesson 1: Explore OL: <i>I can recall prior learning and explore how packaging is designed to protect products.</i> Key Skills: Observing, discussing, identifying features, evaluating, recalling knowledge Key Vocabulary: <i>packaging, product, protect, material, purpose, environmental impact, design</i> - Retrieve prior learning about materials and making. - Introduce key vocabulary - Evaluate packaging already on the market. - Focus on egg boxes to understand protection. - Discuss materials, purpose, and environmental impact. Lesson 2: Develop OL: <i>I can explore how nets and tabs are used to create packaging structures.</i> Key Skills: Constructing, deconstructing, identifying features, experimenting, evaluating Key Vocabulary: <i>net, tab, fold, join, reinforce, structure, attach, prototype</i> - Deconstruct packaging to explore how it is made. - Identify nets, tabs, and joining techniques. - Explore where packaging is reinforced. - Build simple nets (with and without tabs). - Evaluate effectiveness of designs. Lesson 3: Develop OL: <i>I can generate ideas for packaging based on research and prototypes.</i> Key Skills: Generating ideas, analysing, planning, decision-making Key Vocabulary: <i>ideas, design, packaging, product, purpose, choose, suitable, features</i> - Review observations from packaging and prototypes. - Discuss ideas for sweet packaging. - Consider purpose and protection. - Select ideas to develop.	Lesson 1: Explore OL: <i>I can recall prior learning and explore how fairground rides use movement and electrical systems.</i> Key Skills: Observing, identifying features, discussing, using technical vocabulary, recalling knowledge Key Vocabulary: <i>mechanism, electrical system, circuit, motor, movement, rotate, structure, design</i> - Retrieve prior learning about simple circuits and moving mechanisms. - Introduce key vocabulary - Explore images of fairground rides. - Identify how they move (e.g. spinning, lifting) and how they are constructed. - Label key features and discuss movement. Lesson 2: Develop OL: <i>I can build a simple electrical circuit with a motor and explore how movement is created.</i> Key Skills: Constructing, assembling, experimenting, testing Key Vocabulary: <i>circuit, motor, battery, wire, connect, switch, power, movement</i> - Build simple circuits that include a motor. - Explore how the motor creates movement. - Attach different materials to the motor to see effects. - Begin creating simple prototypes of fairground rides. Lesson 3: Develop OL: <i>I can generate ideas for a fairground ride using movement and electrical components.</i> Key Skills: Generating ideas, planning, problem-solving, collaborating Key Vocabulary: <i>ideas, design, ride, movement, structure, passenger, choose, suitable</i> - Develop ideas for a fairground ride in groups. - Consider how parts will move and be connected. - Decide where passengers will sit. - Choose suitable designs to develop.	Lesson 1: Explore (Health & Nutrition) OL: <i>I can recall prior learning and understand that cupcakes are sweet treats and should be eaten in moderation.</i> Key Skills: Observing, discussing, evaluating, classifying, using vocabulary, recalling knowledge Key Vocabulary: <i>sweet treat, cupcake, ingredient, healthy, nutrition, sugar, treat, evaluate</i> - Retrieve prior learning about food groups and healthy eating. - Introduce key vocabulary - Evaluate a selection of shop-bought cupcakes. - Discuss ingredients and nutritional value. - Understand that cupcakes are ‘sweet treats’ and not everyday foods. Lesson 2: Develop OL: <i>I can taste and evaluate cupcakes to help design my own.</i> Key Skills: Tasting, comparing, evaluating, recording information Key Vocabulary: <i>taste, flavour, texture, appearance, decoration, preference, compare</i> - Taste test a range of cupcakes. - Evaluate in terms of taste, texture, and presentation. - Create a class survey for market research. - Include questions about decoration and design. Lesson 3: Develop OL: <i>I can use research to decide what my cupcake should include.</i> Key Skills: Analysing, decision-making, planning, evaluating Key Vocabulary: <i>ideas, ingredients, choose, design, criteria, suitable, decoration</i> - Review survey results. - Identify preferred features (flavours, decorations). - Begin selecting ingredients and design ideas. - Establish simple design criteria. Lesson 4: Design OL: <i>I can plan and design a cupcake using a recipe and labelled diagram.</i> Key Skills: Planning, organising, drawing, labelling Key Vocabulary: <i>recipe, design, plan, ingredients, label, diagram, measure</i> - Research and select a suitable cupcake recipe. - Write a list of ingredients. - Draw a labelled exploded diagram of the cupcake and decorations. - Link design to criteria.
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	Lesson 4: Design OL: <i>I can design and label packaging that includes important structural features.</i> Key Skills: Drawing, labelling, planning, communicating ideas Key Vocabulary: <i>design, label, diagram, plan, net, tab, material, criteria</i> - Establish design criteria (e.g. protects product, easy to assemble, attractive). - Draw and label packaging design. - Include key features such as nets, tabs, and materials. Lesson 5: Make OL: <i>I can create packaging using my design and suitable materials.</i> Key Skills: Cutting, folding, assembling, constructing, selecting tools, creating graphics Key Vocabulary: <i>cut, fold, assemble, construct, tool, equipment, decorate, graphics</i> - Make packaging following the design. - Select appropriate materials, tools, and equipment. - Cut, fold, and assemble nets. - Add design features (drawn or digital graphics). Lesson 6: Evaluate, Improve & Apply OL: <i>I can evaluate and improve my packaging and explain how it could be adapted.</i> Key Skills: Testing, evaluating, reflecting, improving, applying knowledge Key Vocabulary: <i>evaluate, compare, product, design, criteria, improve, adapt, effective, reinforce</i> - Evaluate finished packaging against design criteria and labelled diagram. - Identify strengths and areas for improvement. - Suggest or make adaptations (e.g. stronger joins, better protection). - Discuss how packaging could be improved for different products or users. - Complete an end-point assessment of skills and knowledge.	Lesson 4: Design OL: <i>I can design and label a fairground ride including a circuit and moving parts.</i> Key Skills: Drawing, labelling, planning, communicating ideas Key Vocabulary: <i>design, label, diagram, plan, circuit, motor, material, criteria</i> - Establish design criteria (e.g. safe, stable, moves effectively). - Create an exploded diagram of the ride. - Include a circuit diagram. - Label materials and movement clearly. Lesson 5: Make OL: <i>I can work with others to build a fairground ride using electrical components.</i> Key Skills: Building, assembling, connecting circuits, collaborating, problem-solving Key Vocabulary: <i>build, construct, connect, assemble, tool, equipment, fix, test</i> - Work in groups to build the fairground ride. - Construct the structure and connect the circuit and motor. - Ensure parts move as intended. - Test and adjust during the build. Lesson 6: Evaluate, Improve & Apply OL: <i>I can evaluate and improve my fairground ride and explain how it works.</i> Key Skills: Testing, evaluating, reflecting, improving, applying knowledge Key Vocabulary: <i>evaluate, test, compare, product, design, criteria, improve, adapt, successful</i> - Test the finished fairground ride. - Evaluate against design criteria and diagrams. - Identify strengths and areas for improvement. - Suggest or make adaptations to improve movement or stability. - Explain how the electrical system and mechanism work together. - Complete an end-point assessment of skills and knowledge.	Lesson 5: Make OL: <i>I can follow a recipe to bake and decorate cupcakes safely.</i> Key Skills: Measuring, mixing, baking, decorating, following instructions, hygiene Key Vocabulary: <i>weigh, mix, bake, heat source, oven, hygiene, equipment, decorate</i> - Follow food hygiene procedures. - Weigh and mix ingredients accurately. - Bake cupcakes using a heat source (adult-supervised oven). - Decorate cupcakes according to design criteria. Lesson 6: Evaluate, Improve & Apply OL: <i>I can evaluate my cupcakes and suggest improvements based on feedback.</i> Key Skills: Evaluating, reflecting, improving, gathering feedback, applying knowledge Key Vocabulary: <i>evaluate, taste, compare, feedback, improve, adapt, presentation, flavour</i> - Taste-test finished cupcakes. - Evaluate presentation and flavour. - Create and use an evaluation sheet for feedback. - Suggest improvements or adaptations. - Apply learning to suggest other sweet recipes. - Complete an end-point assessment of skills and knowledge.
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Possible Resources	Collection of shell structures for different purposes and users Card, squared paper, coloured paper, adhesive tape, masking tape, pva glue, glue spreaders, acetate sheet, pencils, felt-tip pens, rulers, right/left handed scissors Computer with computer-aided design (cad) software, printer	Handling collection of battery-powered electrical products Switches including toggle, push-to-make and push-to-break Aluminium foil, paper fasteners, paper clips, card, corrugated plastic, reclaimed materials, finishing materials and media Buzzers, bulbs, bulb holders, zinc carbon or zinc chloride batteries, battery holders, wire, automatic wire strippers Suitable control program with interface box or standalone control box Right/left-handed scissors, pva glue, cutting mats	Flour, butter, sugar, eggs, vanilla essence, icing sugar. <i>*optional: chocolate drops, blueberries, glacier cherries</i> Chopping boards, spoons, jugs, bun cases, mixing spoons, , plates, bowls, aprons, plastic table covers, hand washing and washing-up facilities. Weighing scales Bun trays, oven, oven gloves
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	Autumn Term	Spring Term	Summer Term
Class 4 Year A	Structures – Bridge Bonanza <u>National Curriculum objectives:</u> Investigate and analyse a range of existing products Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design Select from and use a wider range of tools and equipment to perform practical tasks accurately Select from and use a wider range of materials and components according to their functional properties and aesthetic qualities Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work Understand how key events and individuals in design and technology have helped shape the world Technical knowledge: apply their understanding of how to strengthen, stiffen and reinforce more complex structures <u>Vocabulary:</u> explore, develop, design, make, evaluate engineer, bridge, structure, load, symmetry, design, purpose, join, attach, fix, truss, strut, beam, strengthen, reinforce, ideas, stability, choose, suitable, label, diagram, plan, criteria, material, build, construct, assemble, tool, equipment, test, weight, evaluate, compare, improve, adapt, strength	Mechanical Systems – Cams <u>National Curriculum objectives:</u> Investigate and analyse a range of existing products Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design Select from and use a wider range of tools and equipment to perform practical tasks accurately Select from and use a wider range of materials and components according to their functional properties and aesthetic qualities Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work Understand how key events and individuals in design and technology have helped shape the world Technical knowledge: understand and use mechanical systems in their products – cams <u>Vocabulary:</u> explore, develop, design, make, evaluate mechanism, mechanical system, cam, rotary, linear, movement, design, measure, mark, cut, dowel, frame, join, attach, structure, ideas, automata, purpose, choose, suitable, label, diagram, plan, materials, criteria, build, construct, assemble, tool, equipment, fix, test, evaluate, compare, product, results, improve, adapt, refine, explain, successful	Food Technology – Celebrating Culture and Seasonality: Pizzas <u>National Curriculum objectives:</u> Understand and apply the principles of a healthy and varied diet Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. Generate, develop, model and communicate their ideas through discussion, annotated sketches and cross-sectional and exploded diagrams Select from and use a wider range of tools and equipment to perform practical tasks accurately Select from and use a wider range of ingredients according to their characteristics and aesthetic qualities Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work * weigh * mix * knead * roll <u>Vocabulary:</u> explore, develop, design, make, evaluate savoury, ingredient, healthy, nutrition, pizza, processed, grow, source, dough, knead, roll, yeast, base, topping, variation, flavour, preference, compare, rise, prove, fermentation, mixture, design, recipe, ingredients, label, diagram, plan, measure, mix, prepare, bake, heat source, oven, hygiene, taste, texture, appearance, evaluate, result, improve, adapt, refine, balance

Key Learning	Lesson 1: Explore OL: <i>I can recall prior learning and explore how bridges are designed for different purposes.</i> Key Skills: Observing, discussing, identifying features, evaluating, recalling knowledge Key Vocabulary: <i>engineer, bridge, structure, load, symmetry, design, purpose</i> - Retrieve prior learning about structures and materials. - Introduce key vocabulary - Explore images of bridges from around the world. - Discuss purpose and design (e.g. who uses them, what they carry). - Learn about key engineers (e.g. Brunel, Telford, Eiffel, Strauss). Lesson 2: Develop OL: <i>I can use joining techniques to build strong structures.</i> Key Skills: Constructing, joining, experimenting, strengthening Key Vocabulary: <i>join, attach, fix, truss, strut, beam, strengthen, reinforce</i> - Use lolly sticks to practise joining techniques (straight and angled joints). - Build simple beams and extend their length. - Strengthen structures using <i>struts</i> and <i>trusses</i>. - Test which designs are strongest. Lesson 3: Develop OL: <i>I can generate ideas for a strong bridge using my knowledge of structures.</i> Key Skills: Generating ideas, planning, problem-solving, collaborating Key Vocabulary: <i>ideas, design, bridge, structure, purpose, choose, suitable, stability</i> - Discuss what makes a bridge strong and stable. - Generate ideas in groups for a bridge design. - Consider purpose (e.g. carrying weight, crossing distance). - Select suitable ideas to develop. Lesson 4: Design OL: <i>I can design and label a bridge showing how it will be constructed.</i> Key Skills: Drawing, labelling, planning, communicating ideas Key Vocabulary: <i>design, label, diagram, plan, truss, strut, material, criteria</i> - Establish design criteria (e.g. strong, stable, holds	Lesson 1: Explore OL: <i>I can recall prior learning and explore how cams create movement in mechanical systems.</i> Key Skills: Observing, identifying movement, discussing, using technical vocabulary, recalling knowledge Key Vocabulary: <i>mechanism, mechanical system, cam, rotary, linear, movement, design</i> - Retrieve prior learning about mechanisms and movement. - Introduce key vocabulary - Explain that a cam changes <i>rotary motion</i> into <i>linear motion</i>. - Explore everyday examples and pre-built cams. - Test and observe how cams create movement. - Explore examples of Peter Markey's automata for inspiration. Lesson 2: Develop OL: <i>I can use tools and materials to create parts for a cam mechanism.</i> Key Skills: Measuring, marking, cutting, assembling, using tools safely Key Vocabulary: <i>measure, mark, cut, dowel, frame, join, attach, structure</i> - Learn to measure, mark, and cut dowel accurately. - Build simple frames for mechanisms. - Practise joining techniques. - Evaluate how well parts fit and function together. Lesson 3: Develop OL: <i>I can generate ideas for a cam automata that creates movement.</i> Key Skills: Generating ideas, planning, problem-solving, collaborating Key Vocabulary: <i>ideas, design, automata, movement, purpose, choose, suitable, mechanism</i> - Generate ideas for a cam automata in groups. - Consider movement and purpose. - Discuss possible designs and features. - Select suitable ideas to develop. Lesson 4: Design OL: <i>I can design and label a cam automata showing movement and materials.</i> Key Skills: Drawing, labelling, planning, communicating ideas Key Vocabulary: <i>design, label, diagram, plan, cam, rotary, linear, materials, criteria</i> - Establish design criteria (e.g. smooth movement,	Lesson 1: Explore (Health & Nutrition) OL: <i>I can recall prior learning and explore how pizza ingredients contribute to a healthy or less healthy diet.</i> Key Skills: Observing, discussing, classifying, evaluating, recalling knowledge Key Vocabulary: <i>savoury, ingredient, healthy, nutrition, pizza, processed, grow, source</i> - Retrieve prior learning about food groups and balanced diets. - Introduce key vocabulary - Explore pizza ingredients and discuss health and nutrition. - Research where ingredients are grown, reared, caught, or processed. - Sort ingredients into those sourced in Britain and those from abroad. Lesson 2: Develop OL: <i>I can explore different types of pizza and understand how ingredients vary.</i> Key Skills: Discussing, comparing, researching, analysing Key Vocabulary: <i>base, topping, variation, flavour, savoury, preference, compare</i> - Discuss different pizza bases and toppings. - Compare variations in ingredients and flavours. - Consider preferences and combinations. Lesson 3: Develop OL: <i>I can understand how pizza dough is made and why each step is important.</i> Key Skills: Researching, explaining, understanding processes Key Vocabulary: <i>dough, yeast, knead, rise, prove, fermentation, mixture</i> - Research how pizza dough is made. - Learn why yeast is used and how it works. - Understand kneading and rising (proving). - Explain the process in simple terms. Lesson 4: Design OL: <i>I can design a pizza and plan ingredients using a recipe.</i> Key Skills: Planning, selecting, drawing, labelling Key Vocabulary: <i>design, recipe, ingredients, label, diagram, plan, measure</i> - Draw and label an exploded diagram of the pizza design. - Select toppings and base. - Research a suitable recipe. - Write a list of ingredients.
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	weight). • Draw and label a bridge design. • Show key features such as <i>trusses</i> and <i>struts</i>. • Identify materials and structure clearly. Lesson 5: Make OL: <i>I can work with others to build a bridge using my design.</i> Key Skills: Building, assembling, joining, collaborating, problem-solving Key Vocabulary: <i>build, construct, assemble, join, tool, equipment, structure, fix</i> • Work in groups to build the bridge. • Select appropriate tools, materials, and joining methods. • Construct and reinforce the structure. • Make adjustments during the build if needed. Lesson 6: Evaluate OL: <i>I can test and evaluate how well my bridge meets its design criteria.</i> Key Skills: Testing, measuring, evaluating, analysing Key Vocabulary: <i>test, load, weight, evaluate, compare, results, strength, stability</i> • Test bridges by adding weights (<i>load</i>). • Measure and compare how much weight each bridge can hold. • Evaluate performance against design criteria. • Identify strengths and weaknesses in structures. Lesson 7: Improve & Apply OL: <i>I can improve my bridge and explain how structural features make it stronger.</i> Key Skills: Reflecting, improving, adapting, applying knowledge Key Vocabulary: <i>improve, adapt, refine, design, structure, truss, strut, successful</i> • Use evaluation findings to suggest or make improvements. • Adapt designs to improve strength or stability. • Explain how features (e.g. <i>trusses</i>, <i>struts</i>) strengthen bridges. • Apply learning to suggest designs for different purposes (e.g. longer span, heavier load). • Complete an end-point assessment of skills and knowledge.	stable). • Create a cross-section diagram. • Label materials and movement clearly. • Show how the cam will create motion. Lesson 5: Make OL: <i>I can work with others to build a cam automata using my design.</i> Key Skills: Building, assembling, measuring, cutting, collaborating Key Vocabulary: <i>build, construct, assemble, join, tool, equipment, mechanism, fix</i> • Build the automata in groups. • Construct frame and cam mechanism. • Use tools appropriately. • Test and adjust during construction. Lesson 6: Evaluate OL: <i>I can test and evaluate how well my cam automata works.</i> Key Skills: Testing, observing, evaluating, analysing Key Vocabulary: <i>test, evaluate, compare, product, design, criteria, movement, results</i> • Test how effectively the cam creates movement. • Evaluate against design criteria and diagrams. • Compare outcomes between groups. • Identify strengths and weaknesses. Lesson 7: Improve & Apply OL: <i>I can improve my cam automata and explain how the mechanism works.</i> Key Skills: Reflecting, improving, adapting, applying knowledge Key Vocabulary: <i>improve, adapt, refine, explain, mechanism, rotary, linear, successful</i> • Make or suggest improvements to design and movement. • Refine construction or adjust components. • Explain how the cam converts rotary to linear motion. • Apply learning to suggest other uses for cams. • Complete an end-point assessment of skills and knowledge.	Lesson 5: Make OL: <i>I can prepare and cook a pizza safely by following a recipe.</i> Key Skills: Measuring, kneading, rolling, preparing, cooking, hygiene Key Vocabulary: <i>knead, roll, mix, prepare, bake, heat source, oven, hygiene</i> • Follow food hygiene procedures. • Prepare and knead dough. • Roll out the base and add toppings. • Cook pizza in a hot oven (adult supervised). Lesson 6: Evaluate OL: <i>I can evaluate my pizza based on taste, appearance and design criteria.</i> Key Skills: Tasting, evaluating, describing, comparing Key Vocabulary: <i>taste, texture, appearance, evaluate, compare, flavour, result</i> • Taste-test pizzas. • Evaluate based on taste and presentation. • Compare with original design. • Identify strengths and areas for improvement. Lesson 7: Improve & Apply OL: <i>I can improve my pizza design and suggest how it could be adapted.</i> Key Skills: Reflecting, improving, adapting, applying knowledge Key Vocabulary: <i>improve, adapt, refine, ingredients, topping, healthy, balance, design</i> • Suggest adaptations to improve taste or presentation. • Consider healthier ingredient options. • Reflect on what could be changed next time. • Apply learning to design other savoury dishes. • Complete an end-point assessment of skills and knowledge.
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Possible Resources	Products, photographs, web-based resources of existing bridge frame structures. Card, paper straws, newspaper, square sectioned wood, dowel, Paper, card, cardboard. Masking tape, PVA glue, hot glue. Pencils, rulers, right/left-handed scissors. Bench hooks, G-clamp, junior hacksaws, glass paper (sand paper), finishing media and materials	Videos and photographs of cams, models or toys with different cam mechanisms Mdf, card or wooden wheels, plastic or wooden cams, dowel, card boxes, pva glue, masking tape, double-sided tape, square section wood, card, corrugated plastic, finishing media Junior hacksaws, glass paper, g-clamps, bench hooks, hand drill	Information about food from around the world Video clips of foods in the context of where they come from, used and eaten Range of relevant examples of foods to taste and evaluate Basic recipes Suitable equipment and utensils to make and cook recipes such as: weighing scales, measuring jugs, bowls, spoons – various sizes, baking trays, parchment paper, plastic film
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	Autumn Term	Spring Term	Summer Term
Class 4 Year B	Textiles – Combining Different Fabric Shapes: Money Container eg, wallet <u>National Curriculum objectives:</u> Investigate and analyse a range of existing products Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groupsGenerate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design Select from and use a wider range of tools and equipment to perform practical tasks accurately Select from and use a wider range of materials and components according to their functional properties and aesthetic qualities Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work Understand how key events and individuals in design and technology have helped shape the world <u>Vocabulary:</u> explore, develop, design, make, evaluate seam, backstitch, fastening, embellishment, fabric, design, product, needle, thread, knot, stitch, join, button, loop, attach, secure, function, label, diagram, plan, criteria, sew, assemble, tool, finish, test, evaluate, strength, improve, adapt, refine, successful	Electrical systems – Monitoring and Control: An electronic moneybox Microbit or Crumble Kit <u>National Curriculum objectives:</u> Investigate and analyse a range of existing products Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groupsGenerate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design Select from and use a wider range of tools and equipment to perform practical tasks accurately Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work Understand how key events and individuals in design and technology have helped shape the world Technical knowledge: apply their understanding of computing to program, monitor and control their products <u>Vocabulary:</u> explore, develop, design, make, evaluate control, program, system, process, input device, output device, microcontroller, LED, switch, LDR, sensor, input, output, circuit, connect, test, code, crumble, sequence, condition, design, specification, component, criteria, build, assemble, debug, function, evaluate, response, improve, adapt, refine	Food Technology – short crust pastry (savoury tarts) <u>National Curriculum objectives:</u> Understand and apply the principles of a healthy and varied diet Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. Generate, develop, model and communicate their ideas through discussion, annotated sketches and cross-sectional and exploded diagrams Select from and use a wider range of tools and equipment to perform practical tasks accurately Select from and use a wider range of ingredients according to their characteristics and aesthetic qualities Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work weigh sift rub Roll <u>Vocabulary:</u> explore, develop, design, make, evaluate savoury, pastry, ingredient, healthy, nutrition, processed, source, design, sift, rub, taste, flavour, texture, appearance, preference, compare, dough, mixture, combine, process, recipe, ingredients, label, diagram, plan, measure, mix, prepare, cook, heat source, oven, hygiene, equipment, evaluate, result, improve, adapt, refine, filling, balance

	Lesson 1: Explore OL: <i>I can recall prior learning and explore how fabric products are designed and constructed.</i> Key Skills: Observing, identifying features, discussing, evaluating, recalling knowledge Key Vocabulary: <i>seam, backstitch, fastening, embellishment, fabric, design, product</i> - Retrieve prior learning about textiles and basic joining techniques. - Introduce key vocabulary - Explore a range of fabric money containers. - Identify key features (e.g. seams, fastenings, embellishments). - Discuss purpose and why these features are important. Lesson 2: Develop OL: <i>I can practise basic sewing techniques to join fabric securely.</i> Key Skills: Threading, sewing, knotting, assembling Key Vocabulary: <i>needle, thread, knot, backstitch, seam, join, fabric, stitch</i> - Learn to thread a needle and tie a knot. - Practise backstitch. - Join fabric swatches to create seams. - Evaluate neatness and strength. Lesson 3: Develop OL: <i>I can add simple fastenings to textile products.</i> Key Skills: Sewing, attaching, constructing, evaluating Key Vocabulary: <i>button, loop, fastening, attach, secure, function, design</i> - Practise adding a button and loop fastening. - Explore how fastenings make products functional. - Evaluate effectiveness of different fastening methods. Lesson 4: Design OL: <i>I can design and label a money container using textile techniques.</i> Key Skills: Drawing, labelling, planning, communicating ideas Key Vocabulary: <i>design, label, diagram, plan, fabric, seam, fastening, criteria</i> - Establish design criteria (e.g. secure, functional, attractive). - Create a labelled exploded diagram. - Show seams, fastenings, and materials.	Lesson 1: Explore & Develop Ideas OL: <i>I can recall prior learning and explore how computer-controlled products respond to inputs and produce outputs.</i> Key Skills: Observing, discussing, identifying systems, using technical vocabulary, recalling knowledge Key Vocabulary: <i>control, program, system, process, input device, output device, microcontroller, LED</i> - Retrieve prior learning about circuits, inputs and outputs. - Introduce key vocabulary - Explore a range of products (e.g. nightlights, alarms, security lighting). - Discuss why a control program is used and its advantages. - Identify and discuss <i>input devices</i> (e.g. switches) and <i>output devices</i> (e.g. bulbs, buzzers). - Record ideas about how systems respond to changes. Lesson 2: Develop OL: <i>I can explore and use different input devices to control outputs in a circuit.</i> Key Skills: Constructing, testing, experimenting, identifying components Key Vocabulary: <i>switch, LDR, sensor, input, output, circuit, connect, test</i> - Explore light dependent resistors (LDRs) and different switches (push-to-make, toggle, reed, micro). - Use components to control a light or LED in a circuit. - Test how different inputs affect outputs. - Record observations of how systems respond. Lesson 3: Develop OL: <i>I can begin to understand how a programmed system controls inputs and outputs.</i> Key Skills: Programming, predicting, sequencing, problem-solving Key Vocabulary: <i>program, code, microcontroller, crumble, sequence, condition, control</i> - Introduce simple programming using a microcontroller (e.g. Crumble). - Explore how code controls inputs and outputs. - Predict what will happen when conditions change (e.g. light/dark). - Modify simple programs and test outcomes.	Lesson 1: Explore (Health & Nutrition) OL: <i>I can recall prior learning and explore how savoury tarts can contribute to a balanced diet.</i> Key Skills: Observing, discussing, evaluating, classifying, recalling knowledge Key Vocabulary: <i>savoury, pastry, ingredient, healthy, nutrition, processed, source, design</i> - Retrieve prior learning about food groups and balanced diets. - Introduce key vocabulary - Evaluate a range of shop-bought savoury tarts. - Discuss ingredients in terms of health and nutrition. - Research where ingredients are grown, reared, caught or processed. - Compare shop-bought and home-made options (pros and cons). Lesson 2: Develop OL: <i>I can taste and compare savoury tarts to help develop my own ideas.</i> Key Skills: Tasting, comparing, evaluating, analysing Key Vocabulary: <i>taste, flavour, texture, appearance, savoury, preference, compare</i> - Taste test a range of savoury tarts. - Evaluate presentation and taste. - Compare textures and flavour combinations. - Discuss preferences and suitability. Lesson 3: Develop OL: <i>I can understand how pastry is made and why each step is important.</i> Key Skills: Researching, explaining, understanding processes Key Vocabulary: <i>pastry, sift, rub, dough, mixture, combine, ingredients, process</i> - Research shortcrust pastry. - Learn what it means to <i>sift</i> and <i>rub</i>. - Understand why pastry should not be overworked. - Explore how ingredients combine to make dough. Lesson 4: Design OL: <i>I can design a savoury tart using a recipe and labelled diagram.</i> Key Skills: Planning, selecting, drawing, labelling Key Vocabulary: <i>design, recipe, ingredients, label, diagram, plan, measure</i> - Research a recipe that fits preferences and criteria.
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	Lesson 5: Make OL: <i>I can create a fabric money container using my design.</i> Key Skills: Sewing, assembling, selecting materials, following a plan Key Vocabulary: <i>sew, stitch, assemble, join, fabric, thread, tool, finish</i> • Make the money container following the design. • Use sewing techniques (backstitch, seams). • Add fastening and decorative features. • Ensure the product is neat and functional. Lesson 6: Evaluate OL: <i>I can test and evaluate how well my money container works.</i> Key Skills: Testing, evaluating, reflecting, analysing Key Vocabulary: <i>test, evaluate, product, design, criteria, function, strength, secure</i> • Test the product by placing coins inside. • Evaluate against design criteria and diagram. • Consider strength, security, and appearance. • Identify strengths and areas for improvement. Lesson 7: Improve & Apply OL: <i>I can improve my textile product and explain how it could be adapted.</i> Key Skills: Reflecting, improving, adapting, applying knowledge Key Vocabulary: <i>improve, adapt, refine, design, fastening, embellishment, function, successful</i> • Suggest or make improvements (e.g. stronger seams, better fastening). • Refine design or construction where possible. • Discuss how the product could be adapted for different users or purposes. • Apply learning to other textile products. • Complete an end-point assessment of skills and knowledge.	Lesson 4: Design OL: <i>I can design an electronic moneybox using inputs, processes and outputs.</i> Key Skills: Planning, designing, annotating, problem-solving Key Vocabulary: <i>design, specification, system, input, process, output, component, criteria</i> • Establish design criteria (purpose, user, motivation, function). • Create annotated sketches showing components and how the system works. • Include input (e.g. micro switch), process (program), output (e.g. LED). • Reference how the control program will work. • Create a step-by-step plan including tools and materials. Lesson 5: Make OL: <i>I can build and program an electronic moneybox that responds to inputs.</i> Key Skills: Building, assembling, programming, debugging Key Vocabulary: <i>build, assemble, connect, program, debug, circuit, component, system</i> • Construct the moneybox using the design. • Connect components (inputs, outputs, microcontroller). • Create and modify a program to control the system. • Test and debug so the product works automatically. Lesson 6: Evaluate OL: <i>I can test and evaluate how well my electronic moneybox works.</i> Key Skills: Testing, analysing, evaluating, comparing Key Vocabulary: <i>test, evaluate, system, function, design, criteria, output, response</i> • Test how well the system responds to inputs. • Evaluate against design specification. • Analyse effectiveness for the intended user and purpose. • Compare outcomes with original plan. Lesson 7: Improve & Apply OL: <i>I can improve my program and apply my learning to new ideas.</i> Key Skills: Reflecting, improving, adapting, applying computational thinking Key Vocabulary: <i>improve, adapt, refine, program, input,</i>	• Select suitable ingredients. • Write a list of ingredients. • Draw a labelled cross-section diagram of the tart. Lesson 5: Make OL: <i>I can prepare and cook a savoury tart safely by following a recipe.</i> Key Skills: Measuring, preparing, mixing, cooking, hygiene Key Vocabulary: <i>measure, mix, prepare, cook, heat source, oven, hygiene, equipment</i> • Follow food hygiene procedures. • Prepare pastry and fillings. • Use tools and equipment safely. • Cook the tart in the oven (adult supervised). Lesson 6: Evaluate OL: <i>I can evaluate my savoury tart based on taste, appearance and design criteria.</i> Key Skills: Tasting, evaluating, describing, comparing Key Vocabulary: <i>taste, texture, appearance, evaluate, compare, flavour, result</i> • Taste-test finished tarts. • Evaluate presentation and flavour. • Compare outcomes with original design. • Identify strengths and areas for improvement. Lesson 7: Improve & Apply OL: <i>I can improve my tart design and suggest how it could be adapted.</i> Key Skills: Reflecting, improving, adapting, applying knowledge Key Vocabulary: <i>improve, adapt, refine, ingredients, filling, healthy, balance, design</i> • Suggest adaptations to improve taste or presentation. • Consider healthier ingredient choices. • Reflect on changes for next time. • Apply learning to design other savoury dishes. • Complete an end-point assessment of skills and knowledge.
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		<i>output, system, function</i> • Suggest and/or implement improvements to the program or build. • Adapt the system (e.g. burglar alarm or reminder system). • Explore alternative inputs (e.g. movement switch) and outputs (e.g. buzzer). • Apply learning to other control system ideas. • Complete an end-point assessment of skills and knowledge.	
Possible Resources	Existing textile products for investigation and deconstruction linked to their product Wide selection of textiles including reclaimed and reusable fabrics, dipryl Pins, needles, thread, measuring tape, left/right handed fabric scissors, pinking shears iron, iron transfer paper, sewing machine Range of fastenings, materials for insulating or strengthening e.g. Bubble wrap, wadding, interfacing Finishing materials e.g. Sequins, buttons, fabric paints	Microcontroller or standalone control box or interface box Collection of battery-powered, manually controlled and programmable products Batteries, battery holders, crocodile leads Different output devices including bulbs with bulb holders, buzzers, light emitting diodes (leds), motors Different input devices including micro switches, reed switches and magnets, light dependent resistors (ldrs) Wire, automatic wire strippers, masking tape, construction materials and tools as required	Various savoury tarts and quiches. Flour, butter, egg, milk, grated cheese. <i>*optional: bacon pieces, tomatoes, onions</i> Chopping boards, knives, peelers, graters, juicers, spoons, jugs, mixing spoons, mashers, plates, bowls, aprons, plastic table covers, hand washing and washing-up facilities. Oven, oven gloves, baking tray, bun tray