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	Concept(s): Structures and Textiles (Autumn 2)						
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Focus	Free Standing Structures, shell structures and frame structures, textiles	2D net to 3D structure	Textiles: Templates and joining	Shell Structures	Textiles: Fastenings	Frame Structures	Textiles: Combining different 3D Fabric Shapes
Product	Various	A windmill	A pouch	A castle	A book cover	A bridge	A soft toy
Vocabulary ALL **Explore, design, make, evaluate**	Cut, join, fold, fix, stick, tower, base, strong Tools: Sellotape, scissors, masking tape, stapler, glue, hole punch	Cut, fold, join, fix, structure, weak, strong, stable, cylinder, net, axle Tools: Sellotape, scissors, masking tape	Joining, finishing, fabric, template, pattern, decorate, thread, pin, cut Tools: Stapler, scissors, glue, needle, thread	Shell structure, 2-D, 3-D, net, marking out, scoring, tabs, joining, strong Tools: scissors	Fabric, pattern, fastening, button, hook and eye, zip, popper, Velcro, structure, strength, weakness, stiffening, templates, stitch Tools: Needle, thread, needle threader, fabric scissors	Frame structure, stiffen, strength, reinforce, triangulation, stability, shape, join, temporary, permanent, prototype, purpose, functional Tools: Junior hacksaw, wooden block, sandpaper, glue	Seam, seam allowance, wadding, reinforce, right side, wrong side, hem, pattern pieces, design criteria, prototype. Tools: needles, threads, needle threader, pinking shears, sewing machine
Designing	I am beginning to explore ideas using different media and materials.	I know how to generate ideas based on my own experiences and the experience of others in my class.	I know how to generate ideas and a simple design criterion through discussion thinking about purpose and user.	I know how to generate ideas by carrying out questionnaires focusing on user needs.	I know how to generate ideas and a design criterion through discussion for an appealing, functional product fit for purpose and specific user/s.	I know how to generate ideas using surveys and interviews focusing on user needs.	I know how to generate innovative ideas based on a design specification by carrying out research including surveys, interviews, and questionnaires.
		I know how to develop my ideas through discussion and by exploring a range of existing freestanding structures in the school and local environment e.g. everyday products and buildings.	I know how to develop my ideas by exploring and evaluating a range of existing textile products relevant to the project.	I know how to develop ideas through discussion and by investigating and evaluating a range of existing shell structures including the materials, components and techniques that have been used.	I know how to develop my ideas by investigating a range of 3-D textile products relevant to the project and study accomplished textile designers.	I know how to develop my ideas by investigating and evaluating a range of existing frame structures and researching famous architects and architectural firms relevant to the project.	I know how to develop my ideas by investigating and analysing textile products relevant to the project and study accomplished textile designers.
		I know how to create a simple design criterion based on my own experiences and research and develop this through discussion.	I know how to develop and communicate my ideas through drawing and sketching.	I know how to develop my own design criteria through discussion and research, focusing on the needs of the user.	I know how to develop and communicate my ideas through annotated sketches.	I know how to develop a design specification based on a given design brief, considering the constraints of time, resources, and cost.	I know how to develop and communicate ideas through exploded diagrams.
		I know how to model and communicate my ideas through sketches and mock-	I know how to plan and suggest what to do next.	I know how to model and communicate my ideas through annotated sketches and using prototypes, testing and modifying them based on user feedback.	I know how to make an equipment list and produce plans for the main stages of making.	I know how to model and communicate my ideas through exploded drawings, plans, elevations, and sections. And using prototypes, testing, and	I know how to produce detailed lists of equipment and fabrics and formulate step-by-step plans for making.

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		ups made using a variety of materials.				modifying them based on user feedback.	
Making	I am beginning to construct using a variety of resources with a purpose in mind and I know how to select and use simple tools and techniques needed assemble and join materials.	I know how to plan by suggesting what to do next and write a simple step by step guide.	I know how to select and use textiles according to their characteristics.	I know how to produce a list of tools, equipment and materials, explaining my material choice according to functional properties and aesthetic qualities and write a step-by-step guide.	I know how to select fabrics and fastenings according to their functional characteristics e.g., strength and aesthetic qualities.	I know how to produce detailed lists of tools, equipment, and materials, explaining my material choice according to functional properties and aesthetic qualities and formulate step-by-step plans to guide making adjusting these if required.	I know how to select fabrics and fastenings according to their functional characteristics e.g., strength and aesthetic qualities and reinforce them if necessary.
		I know how to select and use appropriate tools and materials need to make a structure and explain my choices.	I know how to use a template to mark up my fabric.	I know how to select and use appropriate tools to measure, mark out, cut, score, shape and assemble with some accuracy.	I know how to use existing pattern pieces to mark up my fabric.	I know how to competently select and use appropriate tools to accurately measure, mark out, cut, shape and join construction materials to make frameworks.	I know how to make my own pattern pieces to mark up my fabric.
		I know how to use simple finishing techniques and decorative suitable for the structure I am creating.	I know how to select and use a range of tools and equipment to perform practical tasks e.g., marking out, cutting, joining and finishing.	I know how to use simple finishing techniques and decorative suitable for the structure I am creating focus on user need.	I know how to select and use a range of appropriate tools to perform practical tasks with some accuracy e.g., marking, cutting, joining and finishing.	I know how to use finishing and decorative techniques to a high standard suitable for the product that I am creating focusing on user need.	I know how to select and use a range of tools and equipment to make products that are accurately assembled and well finished.
Evaluating	I am beginning to adapt work when necessary and explain my reasons.	I know how to evaluate my product by discussing how well it works in relation to the purpose and the user and whether it meets design criteria.	I know how to evaluate my ideas throughout the process by discussing work with peers.	I know how to continually test and evaluate my own product and ideas against criteria, purpose, and user needs.	I know how to evaluate my ideas throughout the process and consider the views of others.	I know how to continually evaluate, test and compare my product and ideas to the original design brief, design specification and user needs, focusing on identifying strengths and areas for development.	I know how to evaluate my ideas throughout the process and based on the research carried out.
Technical knowledge	I am beginning to develop my knowledge of shapes and create structures	I know how to develop and use my knowledge of 2-D shapes to create a freestanding structure.	I know how to evaluate my final product against the original design criteria.	I know how to develop and use my knowledge of nets of cubes, cuboids and, where appropriate, more complex 3D shapes, to create a shell structure.	I know how to compare and evaluate my final product against the original design criteria with the intended user in mind.	I know how to develop and use my knowledge to 2-D shapes and angles to create a 3-D framework.	I know how to compare and evaluate and test my final product against the original design specification with quality, functionality and purpose in mind.
		I know how to make freestanding structures stronger, stiffer and more stable.	I know how to make a 2-D textile product by joining fabrics two or more pieces of fabric together using a template.	I know how to develop and use my knowledge to construct strong, stiff shell structures.	I know how to make a 3-D textile product from accurately joining two or more pieces of fabric together using existing pattern pieces.		I know how to make a 3-D textile product from a combination of accurately made pattern pieces, fabric shapes and different fabrics.
			I know how to join fabrics using glue and running stitch.		I know how to join fabrics together using running stitch and over stich.		I know how to join two pieces of fabric together using a variety of techniques,

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							choosing the most suitable for the job.
			I know the difference between stiff and flexible fabrics.		I know how to strengthen and stiffen existing fabrics.		I know how to strengthen, stiffened and reinforced existing fabrics.
			I know how to explore different finishing techniques e.g. painting, using painting, stitching and applying sequins/ribbons.		I know how to explore different finishing techniques e.g., printing, embroidery and pleating.		I know how to explore different finishing techniques e.g. dying, embroidery and 3-D pleating.
	Concept(s): Mechanisms, Mechanical Systems and Electrical Systems (SPRING 2)						
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6 (Summer 2)
Focus	Sliders, Levers, wheels, Axles	Wheels and Axles	Wheels and axles	Levers and Linkages	Simple Circuits and Switches	Sliders, pivots, folds and levers	Complex Circuits and Switches
Product	Various	Wheeled trolley for The Three Little pigs	A fairground wheel	A moving Iron Man	A torch	A pop-up book	A steady hand game
Vocabulary ALL **Explore, design, make, evaluate**	Vehicle, wheel, axle, lever, slider Tools: Scissors, masking tape, Sellotape, hole punch	Vehicle, wheel, axle, axle holder, body, cab, chassis Tools: Scissors, masking tape, Sellotape, hole punch	Wheel, Ferris wheel, pods, axle, axle holder, frame, mechanism Tools: Scissors, masking tape, hole punch, ruler	mechanism, lever, linkage, pivot, slot, bridge, guide system, input, process, output Tools: Scissors, masking tape, Sellotape, split pin	Circuit, switch, bulb, casing, shade, decoration Tools: glue, scissors, crocodile clips,	slider, lever, pivot, slot, bridge/guide, layers, spacers, motion Tools: Scissors, masking tape, Sellotape, split pins	Circuit, electrical system, switch, Tools: crocodile clips, glue, scissors
Designing	I am beginning to explore ideas using different media and materials.	I know how to generate ideas based on my own experiences and by exploring a range of products with wheels and axles.	I know how to generate ideas based on my own experiences.	I know how to generate ideas by carrying out research using web-based resources.	I know how to generate ideas by carrying out research using questionnaires, web-based resources and by investigating a range of existing battery-powered products.	I know how to generate ideas by carrying out research using surveys and interviews.	I know how to generate ideas by carrying out research using surveys and interviews and investigate famous inventors who developed ground-breaking electrical systems and components.
		I know how to develop a simple design criteria based on my own experiences.	I know how to develop my ideas by exploring a range of existing books and everyday products that use simple sliders and levers.	I know how to develop my ideas by investigating products with lever and linkage mechanisms.	I know how to develop design criteria to inform the design of products that are fit for purpose and aimed at individuals or groups.	I know how to develop my ideas by investigating famous manufacturing and engineering companies relevant to the project.	I know how to develop a design specification based on a given design brief and work within the constraints of time, resources and cost.
		I know how to develop and communicate ideas through drawings and mock-ups.	I know how to develop a simple design criteria based on my own experiences and research.	I know how to develop my own design criteria through discussion and research	I know how to develop and communicate ideas through annotated sketches.	I know how to develop a design specification based on a given design brief and research.	I know how to develop and communicate ideas through exploded diagrams and pictorial representations of electrical circuits.
		I know how to plan by suggesting what to do next.	I know how to model and communicate my ideas through simple sketches and using card/paper mock-ups.	I know how to model and communicate my ideas through annotated sketches and prototypes.	I know how to produce a list of tools, equipment and materials, and order the main stages of making.	I know how to model and communicate my ideas through exploded drawings, plans and elevations. And using prototypes, testing and modifying them based on user feedback.	I know how to produce detailed lists of tools, equipment, materials and components, and formulate step-by-step plans to guide making.

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Making	I am beginning to construct using a variety of resources with a purpose in mind and I know how to select and use simple tools and techniques needed assemble and join materials.	I know how to select and use a range of tools and equipment to perform practical tasks such as cutting and joining to allow movement and finishing.	I know how to plan by suggesting what to do next.	I know how to produce a list of tools, equipment and materials, and order the main stages of making.	I know how to select and use tools and equipment to cut, shape, join and finish with some accuracy.	I know how to produce detailed lists of tools, equipment and materials, and formulate step-by-step plans to guide making.	I know how to competently select and use tools and equipment to cut, shape, join and finish accurately.
		I know how to select from and use a range of materials and components such as paper, card, plastic and wood according to their characteristics.	I know how to select and use tools to cut using scissors, shape and join paper and card.	I know how to select and use appropriate tools with some accuracy to cut using scissors, shape and join paper and card.	I know how to select from and use materials and components, including construction materials and electrical components according to their functional properties and aesthetic qualities.	I know how to select and use a range of tools and equipment to make products that that are accurately assembled.	I know how to competently select and accurately assemble materials, and securely connect electrical components to produce a reliable, functional product.
			I know how to use simple finishing techniques suitable for the product I am creating.	I know how to use finishing techniques suitable for the product that I am creating focusing on user need.		I know how to use finishing techniques to a high standard suitable for the product that I am creating focusing on user need.	I know how to create and modify a computer control program to enable an electrical product to work automatically in response to changes in the environment.
Evaluating	I am beginning to adapt work when necessary.	I know how to evaluate my product and ideas by discussing how well it works in relation to the purpose and the user and whether it meets design criteria.	I know how to evaluate my product by discussing how well it works in relation to the purpose and the user and whether it meets design criteria.	I know how to continually evaluate my own product and ideas against criteria and user needs.	I know how to continually evaluate my own product and ideas against criteria and user needs.	I know how to continually evaluate and compare my product and ideas to the original design brief and design specification, focusing on its effectiveness for the intended user and purpose.	I know how to continually evaluate and modify my product and ideas to match the initial design specification, focusing on its effectiveness for the intended user and purpose.
Technical knowledge	I am beginning to explore and use sliders and levers	I know how to explore and use wheels, axles and axle holders.	I know how to explore and use sliders and levers.	I know how to explore and use lever and linkage mechanisms.	I understand and use electrical systems in my products.	I know how to explore and use pulleys or gears.	I understand and use electrical systems in my products.
	I am beginning to understand that different mechanisms produce different types of movement.	I know how to distinguish between fixed and freely moving axles.	I know that different mechanisms produce different types of movement.	I know how to distinguish between fixed and loose pivots.	I know how to apply my understanding of computing to program and control my products.	I understand how gears and pulleys can be used to speed up, slow down or change the direction of movement.	I know how to apply my understanding of computing to program, monitor and control my products.

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	Concept: Food and Nutrition (Summer 2)						
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Focus	Heathy eating and seasonality	Healthy eating	Celebrating seasonality.	Healthy eating	Cooking to a budget	Healthy eating and ethical issues surrounding cattle farming	Celebrating Seasonality in the Wider World
Product	Various	A healthy smoothie for the end of term.	vegetable-based wrap for a class picnic	Healthy, home-grown snacks (Country Trust)	Adapting a basic biscuit recipe	Bolognaise using worldwide vegetables.	Developing a three-course meal
Vocabulary	fruit vegetables mixing healthy chop Tools: table knife, chopping board, mixing bowl	Fruit, vegetable, seed, smoothie, healthy, flavour, peel, slice, chop Tools: table knife, peeler, chopping board, mixing bowl, blender	Balanced diet, balance, carbohydrate, dairy, fruit, ingredients, oils, sugar, protein, wrap, slicing, chopping, bridge/claw grip, recipe. Tools: table knife, peeler, chopping board, grater	Balanced diet, balance, fruit, ingredients, slicing, peeling chopping, bridge/claw grip, recipe, seasonality, farm, market, wholesale Tools: sharp knife, peeler, chopping board, grater, saucepan, spoons	Design Criteria, research, texture, shape, colour, prototype, recipe, budget, creaming, rolling, cutting, packaging Tools: Mixing bowl, sieve, measuring scales, spoon, rolling pin, tea spoon	Heathy, balanced diet, ethical, ethically sourced, adapted recipe, healthy substitutions, cross-contamination, peeling, grating, crushing, slicing, chopping, bridge/claw grip Tools: sharp knife, peeler, chopping board, grater, saucepan, frying pan, spoons, spatula, colander, Garlic crusher	Heathy, balanced diet, ethical, ethically sourced, adapted recipe, healthy substitutions, starter, main course, dessert, cross-contamination, peeling, grating, crushing, slicing, chopping, bridge/claw grip, food hygiene Tools: sharp knife, peeler, chopping board, grater, saucepan, frying pan, spoons, spatula, colander, Garlic crusher
Designing	I am beginning to carry out carry out sensory research with my peers and I understand that we like/dislike different things.	I know how to carry out sensory research into appearance and taste and discuss findings.	I know how to carry out sensory research into appearance and taste and discuss findings.	I know how to carry out sensory research into appearance, taste and texture, and record findings in tables.	I know how to carry out sensory research into appearance, taste and texture, and record findings in tables.	I know how to carry out sensory research into appearance, taste, texture and aroma, and record findings in tables and charts.	I know how to carry out sensory research into appearance, taste, texture and aroma, and record findings in tables and charts.
	I am beginning to use my research to discuss ideas about a recipe.	I know how to use my knowledge of appearance and taste to generate ideas and design a simple criterion.	I know how to use my knowledge of appearance and taste to generate ideas and design a simple criterion.	I know how to use my knowledge of appearance, taste and texture to generate ideas and create a design criterion.	I know how to use my knowledge of appearance, taste and texture to generate ideas and create a design criterion.	I know how to use my knowledge of appearance, taste, texture and aroma to generate innovative ideas based on existing recipes.	I know how to use my knowledge of appearance, taste, texture and aroma to generate innovative ideas based on existing recipes.
	I am beginning to communicate simple ideas through discussion.	I know how to communicate simple ideas through sketches and discussions.	I know how to communicate simple ideas through sketches and discussions.	I know how to communicate my ideas through annotated sketches, and I know how products can be made for different audiences.	I know how to communicate my ideas through annotated sketches, and I know how products can be made for different audiences.	I know how to communicate my ideas through annotated sketches and by creating food samples, and I can make design choices based on knowledge of purpose and audience.	I know how to communicate my ideas through annotated sketches and by creating food samples, and I can make design choices based on knowledge of purpose and audience.
Making	I am beginning to make simple decisions about the ingredients within recipes.	I know how to follow a simple recipe.	I know how to follow a simple recipe.	I know how to follow recipes to support the main stages of cooking and make subtle changes to fit my criteria.	I know how to follow recipes to support the main stages of cooking and make subtle changes to fit my criteria.	I know how to create my own recipe including ingredients and equipment.	I know how to create my own recipe including ingredients and equipment.
	I am beginning to stir, mix, pour and blend ingredients	I know which utensils are used for cutting, peeling and grating.	I know which utensils are used for cutting, peeling and grating.	I know which utensils are used for chopping, slicing,	I know which utensils are used for chopping, slicing, grating	I know which utensils are used for chopping, slicing, grating and mixing, and can understand more	I know which utensils are used for chopping, slicing, grating and mixing, and

	during cookery activities.			grating and mixing, and can select them appropriately.	and mixing, and can select them appropriately.	complex techniques e.g. baking and kneading.	can understand more complex techniques e.g. baking and kneading.
Evaluating	I am beginning to describe the taste of foods made and say what I like and dislike	I can taste and use language to express preferences and evaluate my final meal against my original design criteria.	I can taste and use language to express preferences and evaluate my final meal against my original design criteria.	I can taste and use language to express preferences and evaluate throughout and check success against original success criteria.	I can taste and use language to express preferences and evaluate throughout and check success against original success criteria.	I can taste and use language to express preferences and evaluate throughout and check success against original success criteria, whilst keeping in mind purpose and audience.	I can taste and use language to express preferences and evaluate throughout and check success against original success criteria, whilst keeping in mind purpose and audience.
Technical knowledge	I know that vegetables and fruit are healthy.	I know that everyone should eat at least five portions of fruit and vegetables every day.	I know that all food comes from plants or animals and that food must be farmed or grown.	I know that different foods and drinks contain different substances and belong in 5 food groups.	I know that food is grown, reared (farmed) and caught in the UK and that seasons may affect the food available.	I know that a healthy diet is made up from a variety and balance of different food and drink, as depicted in The Eatwell Plate	I know that food is grown, reared and caught in the UK and the wider world and that seasons may affect the food available.
	I know how to use simple words to describe what I am doing e.g. stirring and mixing.	I know how to use techniques such as cutting, peeling and grating.	To know how fruit and veg is processed into ingredients that can be eaten or used in cooking.	I know how to use a range of techniques such as peeling, chopping, slicing, grating and mixing.	To know how food is processed into ingredients that can be eaten or used in cooking.	I know how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, kneading and baking.	To know how food is processed into ingredients that can be eaten or used in cooking.
	I know how to use simple tools in a safe manner	I know how to prepare simple dishes safely and hygienically without using a heat source.	To prepare simple dishes safely and hygienically without using a heat source.	I know how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source.	To prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source.	I know how to know prepare and cook a variety of sweet and savoury dishes safely and hygienically including, where appropriate, the use of a heat source.	To know how to prepare and cook a variety of sweet and savoury dishes safely and hygienically including, where appropriate, the use of a heat source.
		To know that recipes can be adapted to change the appearance and taste.	To know that recipes can be adapted to change the appearance.	To know that recipes can be adapted to change the appearance, taste and texture.	To know that recipes can be adapted to change the appearance and taste.	To know that recipes can be adapted to change the appearance, taste, texture and aroma.	To know that recipes can be adapted to change the appearance, taste, texture and aroma.