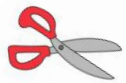
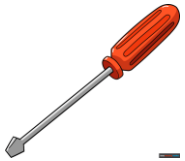
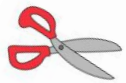



Design and Technology: Progression of Skills and Technical Knowledge




	Design	Make	Evaluate	Technical Knowledge	Vocabulary
Reception	Fruit kebabs, finger puppets, junk modelling (rockets), making pizza, bird feeders, global food, boats, peg bees, allotment fruit and vegetables, designing healthy meals, terracotta army design, winter dens for hibernating animals, moving parts card, gingerbread men, making bread for harvest. Plan, design, make and evaluate. Use technical knowledge. **ELG: Fine Motor Skills** Children at the expected level of development will: • Hold a pencil effectively in preparation for fluent writing – using the tripod grip in almost all cases. • Use a range of small tools, including scissors, paint brushes and cutlery. • Begin to show accuracy and care when drawing. **ELG: Creating with Materials** Children at the expected level of development will: • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. • Share their creations, explaining the process they have used.				Design, make, evaluate, attach, join, fix, roll, pat, cut, stick, shape, 3-D, grow, support, strong, weak, mould, healthy, unhealthy, breakfast, lunch, dinner, model
Year 1	**Mechanisms – Moving Pictures** - Define the term mechanism by comparing a static picture with a moving one. - Observe different mechanisms in children's toys e.g locks and latches busy boards. - Study different moving picture mechanisms e.g flap, sliders, levers, spinners. - Look at books and greetings cards with flaps and mechanisms. - Label different mechanisms with the correct lable (flap, slider, lever, spinners). - Design a simple mechanism for a moving picture. - Draw design and label.	**Mechanisms – Moving Pictures** - Make a mock-up of the design. - Make a simple mechanism to illustrate the Victorian seaside. - Use a template to work from. - Choose a lever, slider or flap. - Select from a wide range of materials. - Make another mechanism that is different to the first mechanism (slider, lever, spinner). - Make adjustments to the mechanism in order for it to move smoothly. - Finish the mechanism with an illustration from the Victorian seaside.	**Mechanisms – Moving Pictures** - Evaluate which mechanism was easier and which was harder (out of the two made). - Identify the types of movement e.g. left to right or up and down, or clockwise and anti-clockwise. - Consider the opinions of others. - Compare product against design criteria.	**Mechanisms – Moving Pictures** - Know how to make mechanisms strong, stiffer and more stable. - Use mechanisms in their products e.g. levers, slider, spinners. - Explore how mechanisms work.	**Mechanisms – Moving Pictures** Design criteria, mechanism, mock-up, slider, flap, levers, spinners, stiffer, stable, strong, weak, up, down, right, left, clockwise, anti-clockwise, materials, template, illustrate, evaluate, design, make.

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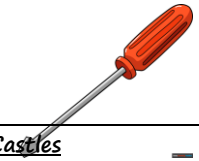
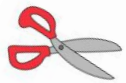



	Structures – Castles - Observe children's castle toys and label different parts. - Explore different moving parts e.g. drawbridge and structural parts e.g. turrets. - Select a range of materials to design a strong, stable castle structure. - Design a castle including several strong structures and a moving part using a pulley (drawbridge). - Know why triangles are often used in structures. **Flair for Gastronomy** - Find out where food comes from e.g. eggs from chickens who lay them, beef from cows. - Design an egg muffin, healthy energy bar, tomato and basil bruschetta, chips and smoothie. **Flair for Textiles** - Designing weaving patterns, picture frames, hair clips, bookmarks, felt animals.	**Structures – Castles** - Make a castle out of strong materials. - Use design to manufacture the castle parts. - Cut, shape and join materials. - Select from a range of materials. - Strengthen the joins using triangles and reinforced joins. - Make a pulley system for the drawbridge. - Finish the product by decorating it with appropriate aesthetic effects e.g. stone effect. **Flair for Gastronomy** - Make an egg muffin, healthy energy bar, tomato and basil bruschetta, chips and smoothie. - Follow a step-by-step set of instructions. - Modify and refine techniques during the cooking process. **Flair for Textiles** - Make a woven pattern, picture frame, hair clip, bookmark and felt animal. - Follow step-by-step instructions. - Modify and refine techniques during the manufacturing process. - Finish the product by decorating it aesthetically.	**Structures – Castles** - Test out castles by experimenting with catapulting balls of playdough at them. - Give each castle a mark out of ten for its strength. - Rank in order of strongest structure to weakest structure. - Evaluate the pulley system for the drawbridge. **Flair for Gastronomy** - Evaluate cooking and consider what went well and what they could improve. - Taste our recipes and comment our likes and dislikes. **Flair for Textiles** - Evaluate textile pieces and consider what went well and what could be improved.	**Structures – Castles** - Build structures, exploring how they can be made stronger, stiffer and more stable. - Explore and use mechanisms such as pulleys in their products. **Flair for Gastronomy** - Beat an egg (for the egg muffins). - Cut a fruit and vegetables safely. - Peel a potato. **Flair for Textiles** - Weaving and interlacing materials using over and under techniques. - Running stitch to join two pieces of fabric. - Make aesthetic choices for finishing products.	**Structures – Castles** Design criteria, drawbridge, turret, battlements, portcullis, barbican, keep, bailey, tower, arrow loops, moat, structure, strong, stable, material, manufacture, make, design, evaluate, reinforced, join, cut, shape, pulley, experiment, rank, strongest, weakest. **Flair for Gastronomy** Design, recipe, make, evaluate, improve, slicing, peeling, beating. **Flair for Textiles** Design, pattern, weaving, woven, manufacturing, process, product, aesthetics, textile, fabric, running stitch, make, evaluate.

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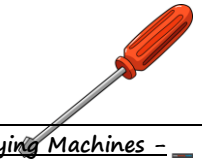
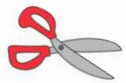



Year 2	**Magnificent Flying Machines – Aerial Vehicles** - Research the Wright brothers attempts to fly aeroplanes. - Draw diagrams to explain flight. - Define the term 'airborne' and learn its meaning. - Identify misconceptions about aerial vehicles and challenge them. - Design paper helicopters and observe them flying. - Explain how things fly using the terms lift, weight, drag and thrust. - Experiment with flying objects to observe what is happening when they take flight. - Observe what happens when the wings of a Styrofoam plane are imbalanced. - Identify the parts of a plane: tail, nose, fuselage, wings. - Identify why the Wright brothers succeeded where others failed (used basic materials which weren't costly so they could make many attempts quickly). - Experiment with different materials for a paper plane with a simple design. - Draw paper plane design.	**Magnificent Flying Machines – Aerial Vehicles** - Make and test paper aeroplanes. - Use different materials and different designs. - Test flight in 'fly zone' and modify designs. - Understand that we are making paper aeroplanes because we can modify and retest quickly, meaning we can succeed faster (like the Wright brothers). - Fold planes so that they are symmetrical. - Observe the forces at work when they test the aeroplanes. - Measure the distance each plane flies. - Record flight distances in a table. - Rank each test plane in order. - Video the tests so we can evaluate later.	**Magnificent Flying Machines – Aerial Vehicles** - Evaluate paper planes and which design was the most successful (which flew the furthest). - Watch videos of our attempts and comment on improvements and successes. - Identify what we would change and what we would keep the same. - Give advice about making a paper plane, using experience.	**Magnificent Flying Machines – Aerial Vehicles** - Folding planes symmetrically. - Measuring and recording to record efficacy. - Compare model with design and note similarities and differences.	**Magnificent Flying Machines – Aerial Vehicles** Airborne, aloft, flight, lift, weight (gravity), drag, thrust, function, diagram, design criteria, research, innovate, prototype, model, attempt, components, mock-up, strength, lightweight, testing, modifying, tinkering, adaptations, record, measure, rank, failure, success, distance, evaluate

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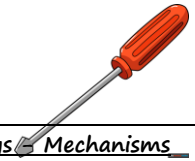
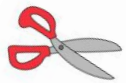



	Sand Pit Pulleys – Mechanisms - Observe moving parts on mechanisms. - Sort toys/household objects that are mechanisms from ones that aren't. - Define why mechanisms are useful and important in our technological world/everyday life. - Identify different types of mechanisms e.g. axles, sliders, levers, pulleys, wheels. - Know why tinkering is important for design. **Flair for Gastronomy** - Find out where food comes from e.g. eggs from chickens who lay them, beef from cows. - Design an egg muffin, healthy energy bar, tomato and basil bruschetta, chips and smoothie. **Flair for Textiles** - Designing weaving patterns, picture frames, hair clips, bookmarks, felt animals.	**Sand Pit Pulleys – Mechanisms** - Design a pulley for lifting sand using design criteria. - Study famous inventors e.g. Da Vinci and how and why he worked as he did. - Problem-solve in real-life situations to move sand from one place to another efficiently/easily. - Learn the term components and use them to make a pulley to move sand. - Use trial and error tinkering to adjust the manufacture process. **Flair for Gastronomy** - Make an egg muffin, healthy energy bar, tomato and basil bruschetta, chips and smoothie. - Follow a step-by-step set of instructions. - Modify and refine techniques during the cooking process. **Flair for Textiles** - Make a woven pattern, picture frame, hair clip, bookmark and felt animal. - Follow step-by-step instructions. - Modify and refine techniques during the manufacturing process. Finish the product by decorating it aesthetically.	**Sand Pit Pulleys – Mechanisms** - Evaluate against the design by checking off on a checklist if it fulfils the brief. - Test out products in the Sand Shed – are they effective? Rate them out of 5 for effectiveness. Which pulley can lift the most sand?  **Flair for Gastronomy** - Evaluate cooking and consider what went well and what they could improve. - Taste our recipes and comment our likes and dislikes. **Flair for Textiles** - Evaluate textile pieces and consider what went well and what could be improved.	**Sand Pit Pulleys – Mechanisms** - Use a strong, stable structure for the mechanism. - Explore and use mechanisms in their products. - Problem-solve in real life situations to gain experience of what works and what is unsuccessful. **Flair for Gastronomy** - Beat an egg (for the egg muffins). - Cut a fruit and vegetables safely. - Peel a potato. **Flair for Textiles** - Weaving and interlacing materials using over and under techniques. - Running stitch to join two pieces of fabric. - Make aesthetic choices for finishing products.	**Sand Pit Pulleys – Mechanisms** Design brief, design criteria, mechanism, template, model, evaluate, make, test, product, process, strong, stable, static, moving parts, axles, pulleys, wheels, discs, sliders, levers, components, tinkering, trial and error, experiment, evaluate, test, process, make. **Flair for Gastronomy** Design, recipe, make, evaluate, improve, slicing, peeling, beating. **Flair for Textiles** Design, pattern, weaving, woven, manufacturing, process, product, aesthetics, textile, fabric, running stitch, make, evaluate.
Year 3	**Mechanisms – Trojan Horses** -Observe vehicles and label different parts e.g. look at toy cars.	**Mechanisms – Trojan Horses** - Select from a wide range of materials and tools.	**Mechanisms – Trojan Horses** - Evaluate the product against the design brief.	**Mechanisms – Trojan Horses** - Apply their understanding of how to strengthen, stiffen	**Mechanisms – Trojan Horses**

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	- Draw a diagram and annotate. - Design a moving vehicle with a chassis, wheels and axles for a Trojan horse. - Draw exploded diagrams to show moving parts e.g. close-up of the axle joins and the wheels. - Design a template for the horse (to duplicate each side). **Cooking and Nutrition – Cook an Omelette!** - Research eggs and why they are so nutritious. - Identify the different parts of an egg. - Learn why protein keeps us full and is an important part of a healthy diet. - Draw a diagram of an egg and label its parts. - Identify irreversible changes that occur when an is cooked in different ways. - Identify healthy ingredients for an omelette. - Design a recipe for an omelette based on research.	- Make the design, cutting, shaping, joining, finishing. - Refine the axle and wheel movement by using carriers to ensure the axle moves freely. - Puzzle out the movement of the axle with mock-ups and prototypes. - Ensure that both sides of the horse are symmetrical. - Use a template to cut out the horse and the chassis. - Tinker and modify the design throughout the process. **Cooking and Nutrition – Cook an Omelette!** - Beat an egg, mixing the albumen and yolk together to make a solution. - Season food with the appropriate amount of pepper. - Slice and dice vegetables. - Use a knife safely (supervised). - Use hygienic methods to cook food. - Refine methods and modify whilst cooking.	- Test out the designs by rolling them down a hill. - Measure which horse goes the furthest and rank in order. - Write up an evaluation of the design and manufacture. - Consider the opinion of others and suggest improvements. **Cooking and Nutrition – Cook an Omelette!** - Evaluate the omelette and identify successes and improvements. - Compare their omelettes with others and rate for taste and presentation. - Discuss preferences	and reinforce more complex structures. - Understand how axles and wheels need to move freely of the chassis. **Cooking and Nutrition – Cook an Omelette!** - Know that we need five-a-day of fruit and vegetables to stay healthy. - Know that eggs are a good source of protein. - Know that vegetables and fruit are sources of fibre and vitamin C as well as other vitamins. - Know that when eggs are cooked, they go through irreversible change. - Identify cooking implements and their names e.g. spatula, fork	Vehicles, axles, wheels, chassis, carrier, diagram, exploded diagram, joins, reinforce, design brief, make, refine, mock-ups, prototype, symmetrical, process, product, evaluate, test, rank, structures, mechanisms, movement, strengthen, stiffen. **Cooking and Nutrition – Cook an Omelette!** Yolk, albumen, eggshell, shell membrane, nutritious, irreversible change, solid, liquid, heat, state of matter, healthy, food wheel, protein, nutrition, names of vegetables, vitamins, minerals, food wheel, solution, grating, chopping, dicing, frying.
Year 4	**Moving Toys Cams** - Observe where cams are used in the real world e.g. hole	**Moving Toys Cams** - Make a moving toy with a cam. - Make a box frame to hold the cam.	**Moving Toys Cams**	**Moving Toys Cams** - Apply understanding of how to strengthen, stiffen and	**Moving Toys Cams** Cams, axle, follower, guider, force, frame,

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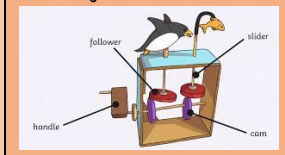
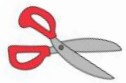
	punchers, engines, sewing machines, dishwashers, clocks, carousel horses, moving toys. - Design a moving toy with multiple cams. - Explore different shaped cams and the movements they make e.g. egg (up and down), snail/drop (rising slowly then suddenly falling), pear (gentle rise and fall). - Explore different types of followers (knife, flat, roller). - Annotate a cam diagram with labels and captions e.g. followers, cams (types), lever, guiders. - Design a moving toy with two or more cam mechanisms, making a step-by-step plan. **Cooking and Nutrition – Pasta Italia!** - Research different ingredients for a traditional Italian food. - Use a food wheel to identify food groups and healthy diets. - Discuss where different vegetables come from and why seasonality of food is important for freshness and the environment. - Identify food that is part of a healthy diet.	- Reinforce the box frame to ensure it is strong and stable. - Measure followers and cams to fit inside the box. - Use models and prototypes to observe movement and measurements. - Select and use tools and components. - Select from a range of materials. - Make adjustments so the toy works well. - Think about the quality of the finish so the product is appealing. **Cooking and Nutrition – Pasta Italia!** - Learn how to cut an onion as a chef does. - Exercise safety when using knives and cooking. - Be hygienic; wash hands and clean work surface and utensils. - Know how to dice, slice and chop different vegetables. - Learn the terms dice, slice, chop, grate. - Identify different herbs and which food they complement. - Follow a recipe of instructions.	- Evaluate the toy, thinking about what went well and suggest improvements. - Consider the opinions of others and make adjustments.  **Cooking and Nutrition – Pasta Italia!** - Evaluate recipe and identify successes and improvements. - Identify which parts of the recipe required skill e.g. chopping and dicing.	reinforce structures (box frame). - Understand and use mechanical systems. **Cooking and Nutrition – Pasta Italia!** - Sauteing vegetables - Chopping, dicing, slicing vegetables - Using knives - Being hygienic - Using hobs safely (adult supervision). - Making a sauce for a solid (pasta). - Learn the names of different types of pasta.	mechanism, pivot, eccentric, central, motion, reinforce, evaluate, design brief, make, adjustments, modify. **Cooking and Nutrition – Pasta Italia!** Diet, carbohydrates, protein, vitamins and minerals, fibre, seasonal, healthy, unhealthy, ingredients, design criteria, recipe, diagrams, modifications, produce, meals, balanced, food wheel.

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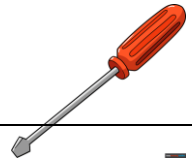


Y3/4	- Design a recipe that includes healthy ingredients using design criteria. - Write a recipe with step-by-step instructions. - Draw diagrams to accompany instructions. - Order a recipe in a logical sequence. **Scientific Instruments – Periscopes** - Look at different scientific instruments e.g. stethoscope, magnifying glass, compass. Identify how these were made. - Identify the uses for a periscope. - Observe a model of a periscope and suggest how it was made. - Make a list of components and materials i.e. two mirrors, cuboid, adhesive/joins, cardboard. **Artisan Endeavour – Big Ben (Structures)** - Research Big Ben and find out that the tower is actually called Elizabeth Tower (the bell is Big Ben). - Identify the 3-D shapes evident in the design. - Comment on the use of this kind of design (clock would be visible all over London). - Identify the architects (Edmund Beckett Denison and	- Use a combination of cooking methods e.g. saute, boil, bake, grill. - Cook pasta until it softens. - Modify recipe by taste testing. - Learn that adding tomato puree enriches and thickens a sauce. **Scientific Instruments – Periscopes** - Use a step-by-step set of instructions to construct the periscope. - Experiment with mirrors angled correctly to enable viewer to see without being seen. - Join different parts and stiffen to reinforce. - Refine and make modifications, tinkering. **Artisan Endeavour – Big Ben (Structures)** - Design the net for the cuboid and then the pyramid. - Decorate the net for aesthetic design. - Leave tabs to join the cuboid and pyramid together. - Stabilise and strengthen so that the structure stands up. - Make modifications and adaptations. - Refine through the manufacture process.	**Scientific Instruments – Periscopes** - Evaluate our product to assess whether it is effective. - Identify changes that could be made. - Identify successes. - Consider the opinions of others. **Artisan Endeavour – Big Ben (Structures)** - Evaluate the end product for its strengths and improvements. - Compare with the original design. - Consider the opinions of others.	**Scientific Instruments – Periscopes** - Apply knowledge of how to strengthen, stiffen and reinforce. - Use understanding of how light travels to position the mirrors at the correct angle. **Artisan Endeavour – Big Ben (Structures)** - Apply understanding of how to strengthen, stiffen, reinforce. - Understand how to create a net for a 3-D shape.	**Scientific Instruments – Periscopes** **Scientific instrument,** periscope, angle, position, joining, reinforcing, stiffening, strengthening, cuboid, model, process, viewer, evaluate, accuracy **Artisan Endeavour – Big Ben (Structures)** Cuboid, pyramid, three-dimensional, design criteria, evaluate, structure, form, aesthetics, stabilise, strengthen, stiffen, modify, refine, architecture, architect, skyline


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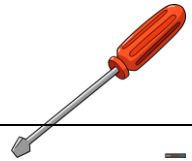
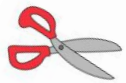



	George Airy) and the impact they had on building design and the London skyline. **People Skills Endeavour – Miniature Quiches (Cooking/Nutrition)** - Design a miniature quiche for afternoon tea, selecting healthy, nutritious ingredients.	**People Skills Endeavour – Miniature Quiches (Cooking/Nutrition)** - Make a miniature quiche for afternoon tea, choosing healthy ingredients. - Measure ingredients. - Use a recipe to guide process. - Adjust method throughout process.	**People Skills Endeavour – Miniature Quiches (Cooking/Nutrition)** - Evaluate quiches by taste-testing. - Comment on what went well and what needs to be improved.	**People Skills Endeavour – Miniature Quiches (Cooking/Nutrition)** - Beat eggs (mixing albumen and yolk). - Know that yolks are very nutritious because they help a chick to grow. - Eggs are a source of protein. - Chop and slice safely. - Crack an egg. Scoop up any shell with the shell itself.	**People Skills Endeavour – Miniature Quiches (Cooking/Nutrition)** Albumen, yolk, beat, design, make, evaluate, nutritious, healthy, measure, process, product, ingredients, chop, slice, crack, protein

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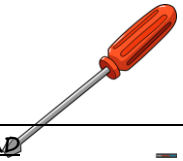
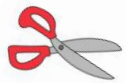
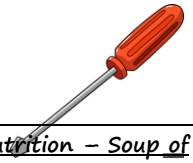


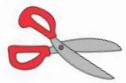

Year 5	**3-D Vehicles CAD** - Designing for a purpose, recognising the term 'fit for purpose' means something that has been designed with a function. - Design using different viewpoints and design perspectives. - Use CAD tools to design. - Design products based on design criteria. - Generate, develop, model and communicate their ideas through talking, drawing, mock-ups and IT/CAD. - Experiment with moving points and altering design shapes while maintaining form. - Edit polygon 3-D models to design 3-D model for a purpose. - Refine designs to prepare for making.	**3-D Vehicles CAD** - Make adaptations to the vehicle design after assembling to modify and correct issues. - Select from and use a range of tools and materials. - Perform practical tasks such as cutting, shaping, joining, finishing. - Work with 2-D nets to make a 3-D model. - Use fine motor skills to ensure accuracy.	**3-D Vehicles CAD** - Explore and evaluate a range of existing models on CAD e.g. vehicles, 3-D polygons, viewpoints. - Evaluate ideas and product against design criteria. - Make changes next time based on evaluations. - Know that evaluating is crucial part of the design process.	**3-D Vehicles CAD** - Select materials which are appropriate for a CAD designed product. - Leave tabs on the net to join up the parts of the CAD vehicle. - Use CAD technical knowledge such as viewpoints, editing tools, moving points.	**3-D Vehicles CAD** Innovation, tools, design criteria, computer-aided design, viewpoint, manufacture, process, attempt, research, function, prototype, moving parts, mechanisms, form, shape, components, adaptations, fit-for-purpose, ergonomics, aesthetics, form, model, polygon, net, testing, modifying, tinkering, materials
Year 5/6	**People Skills Endeavour – Fruit Scones** - Design and bake a scone for afternoon tea for a number of people (design criteria). - Follow a recipe step-by-step. - Design healthy ingredients e.g. cherries, blueberries, dried fruit.	**People Skills Endeavour – Fruit Scones** - Make a fruit scone. - Sieve flour. - Measure ingredients using a scale. - Make adjustments to the recipe where needed. - Cut in half and serve with jam and cream.	**People Skills Endeavour – Fruit Scones** - Evaluate scones, deciding what went well and what could be improved.	**People Skills Endeavour – Fruit Scones** - Rubbing in butter and flour. - Combine liquid with solid. - Dredge dough with flour and smooth dough. - Brush tops with beaten eggs.	**People Skills Endeavour – Fruit Scones** Bake, healthy, ingredients, measure, grams, design, design brief, design criteria, adjust, modify, evaluate, make, rub in, combine, beat, dredge, sieve

Design and Technology: Progression of Skills and Technical Knowledge




Year 5	**Cooking and Nutrition – Soup of the Day** - Use research to inform a design for a recipe. - Research different ingredients and note different flavours. - Use the five tastes the tongue can detect to inform understanding i.e. bitter, sweet, sour, salty and umami. - Discuss choosing natural and artificial ingredients. - Discuss the government's DfH five-a-day guidance and why it is important to eat lots of fruit and vegetables. - Discuss seasonality of produce and why we should eat seasonal food. - Design a fresh soup with five-a-day in mind. - Use the food wheel to plan and design.	**Cooking and Nutrition – Soup of the Day** - Know how to be hygienic when cooking and why it is important. - Know why we need to exercise safety when using knives in the kitchen. - Know how to saute vegetables - To make a stock using a stock cube and know how to make it using vegetable or meat juices. - Know that a stock dilutes and also adds flavour. - To chop, dice, slice, shred and grate ingredients. - To know how to cut an onion using a chef's method. - Experiment with smooth and coarse textures. - Understand the dangers of too much salt in the diet. - Make alterations and modifications i.e. taste tests	**Cooking and Nutrition – Soup of the Day** - Evaluate the recipe and suggest improvements. - Identify what worked well. - Identify how to turn solids (vegetables) into a liquid.	**Cooking and Nutrition – Soup of the Day** - Chopping an onion correctly. - Using knives safely. - Being hygienic. - Know how to make a stock. - Use the food wheel principles to plan healthy meals. - Sauteing vegetables	**Cooking and Nutrition – Soup of the Day** Nutrients, vitamins, fibre, taste, minerals, umami, bitter, sour, sweet, salty, ingredients, healthy, natural, artificial.
Year 5/6	**Textiles – Making Teddies** - Work from a design criteria in textiles. - Design a teddy based on an animal e.g. penguin. - Make a step-by-step design brief e.g. two identical pieces, eyes, beak, other and that this is a design process based on design criteria. - Use the term product and look at existing designs.	**Textiles – Making Teddies** - Use a template to cut out the material. - Select from a range of different material. - Rehears different types of stitch from Flairs badge e.g. running stitch, back stitch and learn whipstitch. - Thread a needle. - Sew two pieces of material together using both hand-sewn stitching and sewing machine.	**Textiles – Making Teddies** - Evaluate teddy and note what went well and suggest improvements. - Consider the opinions of others and make adjustments.	**Textiles – Making Teddies** - Use running stitch to join the fabric. - Use a template to cut two identical pieces for the front and back of the teddy. - Fasten off at the start and at the end of each thread.	**Textiles – Making Teddies** Design criteria, brief, template, identical, front, back, fabric, running stitch, fastening off, finish, make, design, evaluate, adjust, modify, sewing.

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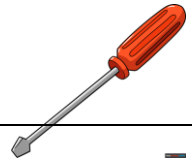
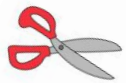



	- Consider safety in design and avoiding potential hazards.	- Use a running stitch, backstitch and whipstitch to join the two identical pieces. - Work from a step-by-step guide, making adjustments for a good finish. - Join using different materials e.g. thread, embroidery floss. - Work with different fabrics e.g. cotton, felt. - Stuff the teddy with appropriate soft stuffing. - Close up the last part of the teddy. - Sew on other components e.g. buttons, stitches.			
Year 6	**Electrical Systems – Motorised Vehicles** - Design a motorised vehicle with an electrical system. - Design an electrical circuit using a motor, battery, wires. - Draw an exploded diagram and annotate. - Draw a cross-sectional diagram and annotate. - Make prototypes and study for your design. - Know that Carl Benz invented the modern car in 1886.	**Electrical Systems – Motorised Vehicles** - Make a chassis frame from wood and reinforce with triangles. - Make four jinks (axle supports) out of card triangles. - Cut two lengths of dowel for the axles. - Make a bearing for the axle out of straw. - Attach a wooden pulley and elastic band. - Make adjustments to make sure the wheel and axle assembly moves freely, while straws remain stationary. - Attach the elastic band to the motor rotor. - Experiment with the tension of the rubber band.	**Electrical Systems – Motorised Vehicles** - Test out the vehicles on different surfaces (greater/less friction). - Measure the distance travelled. - Rank in order of most successful. - Evaluate and consider what went well and what improvements could be made. - Write an evaluation of the vehicle. - Consider the opinions of others.	**Electrical Systems – Motorised Vehicles** - Understand and use electrical systems in their products e.g. series circuits, switches, motors. - Apply understanding to reinforce rectangular structures (use triangles).	**Electrical Systems – Motorised Vehicles** Chassis, axle, motorised, circuit, reinforce, jinks, exploded diagram, cross-section, dowel, bearing, pulley, prototypes, design, make, evaluate, design brief, structure, mechanism, series circuit, switches, friction, force.

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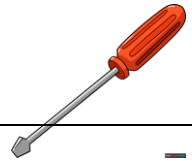


	Cooking and Nutrition – Stir Fry - Research a range of stir fry ingredients by taste testing. - Comment on texture and refer to five different tastes the tongue can sense. - Understand that professional chefs taste test ingredients to plan recipes. - Read different stir fry recipes and comment on what they would taste like. - Research the work of Ken Hom and show how he influenced the Western world with Chinese cooking. - Identify ingredients and match to the food wheel, noting food groups (carbohydrates, vegetables, protein, fibre). - Compare and contrast healthy diets and unhealthy diets. - Design a vegetarian/meat stir fry meal (using tofu/chicken). - Discuss food hygiene and safety. - Write a step-by-step recipe.	- Attach the battery housing and the battery, and the electrical circuit. **Cooking and Nutrition – Stir Fry** - Observe hygiene and safety standards. - Dice, shred, grate, slice ingredients. - Prepare all ingredients beforehand. - Modify flavours using different spices. - Fry on a high heat with adult supervision. - Toss the stir fry lightly. - Add herbs at the end for serving. - Boil noodles and add to stir fry. - Make modifications to improve recipe	**Cooking and Nutrition – Stir Fry** - Evaluate our stir fry recipes, taste testing each one and writing up a review (tick off which are bitter, sweet, salty, sour, umami). - Suggest improvements to recipe and compare with design criteria.	**Cooking and Nutrition – Stir Fry** - Dicing, shredding, grating, slicing vegetables. - Use a food wheel/knowledge of key food groups to plan a meal. - Use knowledge of traditional Chinese cooking to make meal. - Use understanding of what makes a healthy meal.	**Cooking and Nutrition – Stir Fry** Nutrients, nutritious, vitamins, minerals, taste, umami, salty, sour, sweet, sour, healthy, wok, protein, tofu, meat substitute, savoury, ingredients, design criteria, balanced, healthy, unhealthy, chopping, dicing, slicing, grating, wooden spatula, seasoning, spices, process, hygiene, refining, modifications, balanced, method.


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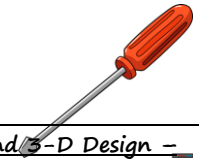


	Mechanisms and 3-D Design – Dioramas - Research dioramas to find out what makes them theatrical and three-dimensional. - Annotate products and identify moving parts and electrical systems. - Use research to inform design criteria. - Design a mock-up of a moving part. - Draw a diagram to show design using cross-sections and exploded diagrams. - Analyse the cross-sectional diagrams of Stephen Biesty. - Design moving parts, showing mechanism through annotated sketches. - Write up a design including steps and diagrams. - Plan out an electrical system (light, motor or buzzer).	**Mechanisms and 3-D Design – Dioramas** - Make a diorama using a range of materials. - Make miniature parts, cutting, folding, joining, reinforcing, stiffening. - Incorporate a moving part to add theatre to the 3-D design. - Incorporate an electrical circuit (light, motor, buzzer). - Make modifications during the manufacturing process. - Make the scene aesthetically pleasing.	**Mechanisms and 3-D Design – Dioramas** - Evaluate their dioramas and suggest improvements and note successes. - Compare design against design criteria. - Identify changes made from the original design. - Consider others' views to improve their work. - Present their diorama to the class and explain their process.	**Mechanisms and 3-D Design – Dioramas** - Manipulating materials in 3-D. - Working in miniature – fine motor skills. - Understand and use mechanisms in products. - Understand and use electrical systems in their products.	**Mechanisms and 3-D Design – Dioramas** three-dimensional, miniature, electrical system, circuit, diorama, mechanism, theatre, research, design criteria, prototype, cross-section, explosive diagram, annotated sketch, model, mock-up, attempt, function, form, diagram, testing, modifying, tinkering, adaptations, innovate.