

DESIGN AND TECHNOLOGY: Knowledge, Skills and Understanding Progression Grid

	Research and Design	Make	Evaluate and Improve	Technical Knowledge	Cooking and Nutrition
Reception	<p>Explain my own understanding</p> <p>Ask questions and use talk to organise, sequence and clarify thinking and ideas</p> <p>Explain how some technology works by exploring parts by pressing, lifting, twisting to say how it works</p> <p>Design my own models (including construction, malleable materials)</p>	<p>Manipulate materials to achieve a planned effect</p> <p>Construct purposefully using a variety of resources</p> <p>Use simple tools and techniques competently and appropriately</p> <p>Select appropriate resources for my designs</p>	<p>Adapt my work where necessary</p> <p>Explain my own knowledge and understanding of what I have made</p>	<p>Learn how to use a range of tools, e.g. scissors, hole punch, stapler, rolling pins, pastry cutters</p> <p>Talk about how everyday objects work</p>	<p>Begin to understand some of the tools, techniques and processes involved in food preparation</p> <p>Develop a basic hygiene awareness (i.e. washing hands before eating snack)</p> <p>Make healthy choices (snack and lunch)</p> <p>Taste a range of foods</p> <p>Decide foods that would be suitable for a Pirate Picnic and use tools to prepare some foods for the picnic.</p>
Year 1	<p>SALAD - RESEARCH: Observe pictures of salad and describe what I like about them (what makes them visually appealing?)</p> <p>Explore and describe what I like about different salad ingredients (tasting and discussing colour, texture and own preferences)</p> <p>SALAD - DESIGN: Design my own salad, thinking about colour, texture and pattern to make it appealing (Select the ingredients and design an attractive way of presenting the salad)</p> <p>CASTLE - RESEARCH: Look at pictures of castles, including Tutbury/Tamworth castle (plus visit) and talk about their key features, purpose and design (battlements, drawbridge). Consider what materials they could use to create a model castle</p> <p>CASTLE - DESIGN: Design my own castle with a hinged door and a working drawbridge</p> <p>PIZZA – RESEARCH: Observe pictures of pizza and describe what I like about them</p> <p>Explore and describe what I like about different pizzas (tasting and discussing types of toppings and own preferences)</p> <p>PIZZA – DESIGN: Design my own pizza based on my research and the design criteria. Make healthy ingredient choices using the ‘Eatwell plate’</p> <p>VICTORIAN TOY – RESEARCH: Explore toys from the Victorian era, including peg dolls and soldiers. Notice what materials they are made from and compare to modern day toys. Research video – Salford Museum</p> <p>VICTORIAN TOY – DESIGN: Design a peg doll or soldier based on my research, selecting materials based on characteristics</p>	<p>SALAD - MAKE: Cut and prepare food safely (with scissors, grater, nylon knife sharp side down)</p> <p>Know how to use the bridge technique, claw grip or ‘fork secure’ to cut food safely (i.e. tomato, cucumber, soft cheese)</p> <p>Present the salad according to their design</p> <p>CASTLE - MAKE: Know how to safely use scissors to cut battlements</p> <p>Know how to create basic hinge joint by folding card</p> <p>Know how to safely poke a hole through cardboard</p> <p>Be able to thread string through a hole and stick it in place</p> <p>Know how to create a winding mechanism</p> <p>PIZZA – MAKE: Cut and prepare food safely (with scissors, grater, nylon knife sharp side down)</p> <p>Know how to use the bridge technique, claw grip or ‘fork secure’ to cut toppings for their pizza safely (i.e. tomato, mushrooms) or tear food i.e. peppers</p> <p>Present the pizza toppings according to their design</p> <p>VICTORIAN TOY – MAKE: Select materials from a range to suit their design for their peg doll/soldier (fabric swatches, fake fur, pipe cleaners, buttons, pens, glue, scissors, wool, string)</p> <p>Know how to use glue to attach materials and other methods, such as wrapping/tying pipe cleaners</p>	<p>SALAD - EVALUATE: Compare their own salad with pictures they viewed in the research stage</p> <p>CASTLE - EVALUATE: Evaluate their finished castles – do they meet the design criteria? Consider how they could be made stronger, stiffer and more stable. Did the winding mechanism work? Why/why not?</p> <p>PIZZA – EVALUATE: Evaluate their finished pizzas – do they meet the design criteria? How did the pizza taste? Did the toppings work well together? Talk about what they liked and disliked. Would they choose a different topping combination if they were to make it again?</p> <p>VICTORIAN TOY – EVALUATE: Evaluate their finished toys – do they meet the design criteria? Consider safety for children. Would their product meet safety requirements?</p>	<p>SALAD – TECHNICAL KNOWLEDGE Use tools safely and the correct cutting techniques when preparing a salad <i>Close supervision</i></p> <p>CASTLE – TECHNICAL KNOWLEDGE:</p> <p>PIZZA – TECHNICAL KNOWLEDGE Use tools safely and the correct cutting techniques when preparing toppings. Use a grater for soft cheese. <i>Close supervision</i></p> <p>VICTORIAN TOY – TECHNICAL KNOWLEDGE: Use tools safely (scissors)</p> <p>Know how to use glue to attach materials and other methods, such as wrapping/tying pipe cleaners</p>	<p>SALAD – COOKING AND NUTRITION: Know that all foods come from plants and animals</p> <p>Categorise different food stuffs into the two main food sources (From Animals / From Plants)</p> <p>Use the basic principles of a healthy and varied diet to plan and prepare dishes</p> <p>PIZZA – COOKING AND NUTRITION: Know that all foods come from plants and animals</p> <p>Categorise different food stuffs into the two main food sources (From Animals / From Plants)</p> <p>Use the basic principles of a healthy and varied diet to plan and prepare dishes</p>

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Year 2	<p>BREAKFAST DISH - RESEARCH: Explore and describe what I like about different types of breakfasts (cereal, porridge, breakfast bar) and relate to my understanding of a healthy, balanced diet</p> <p>Express their opinion about ingredients they taste using sensory vocabulary</p> <p>BREAKFAST DISH - DESIGN: Design a simple breakfast dish based on simple criteria for a user and purpose (fruit kebab / breakfast pot)</p>	<p>BREAKFAST DISH - MAKE: Perform simple food preparation skills safely and hygienically (e.g. peel, mash, juice, cut, spoon, arrange). Know how to use the bridge technique, claw grip or ‘fork secure’ to cut food safely (i.e. fresh and tinned fruits)</p> <p>Present the fruit kebab/ breakfast pot according to their design</p>	<p>BREAKFAST DISH - EVALUATE: Taste and evaluate their breakfast dish, suggest ways their dish could be modified in the future</p>	<p>BREAKFAST DISH – TECHNICAL KNOWLEDGE Use tools safely and the correct cutting techniques when preparing the fruit <i>Close supervision</i></p>	<p>BREAKFAST DISH – COOKING AND NUTRITION:</p> <p>Find out where some of the food we buy in the UK originally comes from</p> <p>Name different food and drinks consumed at breakfast time</p> <p>Explain why it is important to have breakfast every day</p> <p>Sort a selection of food and drink items in to their plant or animal origin</p> <p>Know what makes a healthy breakfast</p>
	<p>CHRISTMAS CARD - RESEARCH: Know that sliders and levers can make things move</p> <p>Know the type of movement generated using a slider and a lever</p> <p>Understand how a slider and lever allow movement</p> <p>Explore how real cards that include a slider or lever works</p> <p>Use the words: up, down, left, right, vertical and horizontal to describe movement</p> <p>CHRISTMAS CARD – DESIGN: Design a Christmas card with a simple moving mechanism (e.g. using a slider where Santa’s sleigh moves across the sky / or a lever for a sledge sliding down a hill)</p>	<p>CHRISTMAS CARD – MAKE: Know how to cut and assemble simple mechanisms using card and scissors (slider/lever)</p>	<p>CHRISTMAS CARD – EVALUATE: Evaluate their lever/slider card and compare it to their original design. What worked well? What could be improved? Did the slider/lever function as planned? What are the reasons that it did/did not?</p>	<p>CHRISTMAS CARD – TECHNICAL KNOWLEDGE: Understand that levers and sliders are mechanisms that make things move</p> <p>Identify whether a mechanism is a lever or slider and determine the movement it makes</p> <p>Know how to make a lever and a slider (choose one for their own design)</p>	
	<p>FIRE ENGINE – RESEARCH: When comparing firefighting equipment now and 1666, they will know there were no motor vehicles in 1666. Look at fire engines now – size, shape, colour, parts (discuss reasons)</p> <p>FIRE ENGINE – DESIGN: Use research about modern day fire engines to design own fire engine model.</p> <p>Know wheels make vehicles move</p> <p>Know wheels are attached by axels</p> <p>Know the axels need to be attached to a chassis (which is the framework of the vehicle) BBC video Wheels and axels</p>	<p>FIRE ENGINE – MAKE: Follow their design to make a moving vehicle (modern day fire engine). Know how to attach wheels to an axel and the axels to a chassis</p> <p>Ensure that their vehicle matches their design criteria (related to a modern day fire engine)</p>	<p>FIRE ENGINE – EVALUATE: Evaluate their finished vehicle. Does it move as they expected? Did the mechanism work well? Did they have to amend or change anything?</p>	<p>FIRE ENGINE – TECHNICAL KNOWLEDGE: Know how to attach wheels to an axel and axels to a chassis to make a vehicle move</p> <p>BBC video Wheels and axels</p>	
	<p>COLESLAW – RESEARCH: Look at pictures, video recipes and taste different coleslaw pots from the supermarket (what are the key ingredients? <i>white cabbage, carrot and mayonnaise</i>)</p> <p>COLESLAW – DESIGN: Use research and recipes to design their own coleslaw (will they add raisins/sultanas/red cabbage/apple?)</p>	<p>COLESLAW – MAKE: Follow the design criteria and recipe to make their own coleslaw, adding additional ingredients where they have designed/specified. Know how to use a grater to prepare the vegetables (and an apple corer/slicer if using apple).</p>	<p>COLESLAW – EVALUATE: Taste and evaluate their coleslaw. Taste their peers’ coleslaw. What do they like about their own and their peers’ coleslaw? Suggest ways their own dish could be improved.</p>	<p>COLESLAW – TECHNICAL KNOWLEDGE</p> <p>Use tools safely and the correct cutting techniques when preparing the vegetables. Use a grater for grating the carrot. <i>Close supervision</i></p>	<p>COLESLAW – COOKING AND NUTRITION: Identify the key vegetables used in a coleslaw (<i>white cabbage, carrot</i>)</p> <p>Know the names of some root (<i>potato, carrot, parsnip</i>), stem (<i>leek, celery, asparagus</i>) and leafy (<i>cabbage, lettuce, spinach</i>) vegetables</p> <p>Use the basic principles of a healthy and varied diet to plan and prepare dishes</p>