



"Make your light shine so others will see the good that you do"



North Somercotes CE Primary School

Whole School Design and Technology Concepts and Vocabulary – Yearly Overview

Our Design and Technology concepts are Design, Make and Evaluate. We also have a focus on Food Technology and Nutrition. This is the key knowledge we learn in each year group.

Key vocabulary enables our children develop their Design and Technology language and understanding as they move through school.

Concepts Year Group	<u>Design</u> Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world	<u>Make</u> Build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users	<u>Evaluate</u> Critique, evaluate and test their ideas and products and the work of others	<u>Food Technology and Nutrition</u> Understand and apply the principles of nutrition and learn how to cook.
Reception	Explore different textures, colour, design and form and function.	Use resources readily available to safely use and explore building and designing objects. Use resources to explore joining and combining materials.	Share their creations explaining the process they have used.	Be able to explain why they like or dislike foods that they taste using the correct vocabulary
	<u>Vocabulary</u>			
	Textures Design Form Function Ideas Construct	Explore Materials Colour Tools Object Join/Combine Weave	Explain Improve	Food Healthy Cut Taste Flavour Like Dis-like Thread



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Year 1	<p>Draw on their own experience to help generate ideas</p> <p>Suggest ideas and explain what they are going to do</p> <p>Draw a simple design</p> <p>Develop their design ideas applying findings from evaluating existing products</p>	<p>Make their design using appropriate techniques</p> <p>With help measure, mark out, cut and shape a range of materials</p> <p>Use tools eg scissors and a hole punch safely</p> <p>Assemble, join and combine materials and components together using a variety of temporary methods e.g. glues or masking tape</p>	<p>Evaluate their product by discussing how well it works in relation to the purpose</p> <p>Evaluate their products as they are developed, identifying strengths and possible changes they might make</p> <p>Evaluate their product by asking questions about what they have made and how they have gone about it</p>	<p>Safely cut food using appropriate equipment and the correct technique</p> <p>Use a selection of different ingredients to make a simple recipe</p> <p>Use some simple cookery equipment correctly with support (sieve, mixing bowls, grater, peeler, whisk)</p> <p>Understand the basic principles of a healthy and varied diet.</p>
	<u>Vocabulary</u>			
	<p>Project</p> <p>generate</p> <p>communicate</p> <p>model</p> <p>product</p> <p>research</p>	<p>techniques</p> <p>measure</p> <p>mark out</p> <p>cut</p> <p>shape</p> <p>materials</p> <p>fabric</p> <p>tools</p> <p>assemble</p> <p>join</p> <p>combine</p> <p>temporary</p> <p>appropriate</p> <p>finishing techniques</p>	<p>evaluate</p> <p>explore</p> <p>products</p> <p>improve</p>	<p>technique</p> <p>ingredients</p> <p>recipe</p> <p>method</p> <p>equipment</p> <p>sieve</p> <p>grater</p> <p>peeler</p> <p>spicy</p> <p>plain</p> <p>sweet</p> <p>savoury</p> <p>sour</p> <p>healthy</p> <p>balance/food groups</p>



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Year 2	<p>Generate ideas by drawing on their own and other people's experiences</p> <p>Develop their design ideas through discussion, observation, drawing and modelling</p> <p>Identify a purpose for what they intend to design and make</p> <p>Identify simple design criteria</p> <p>Model their ideas in card and paper</p> <p>Make simple drawings and label parts</p>	<p>Begin to select tools and materials; use vocab' to name and describe them</p> <p>Measure, cut and score with some accuracy</p> <p>Use hand tools safely and appropriately</p> <p>Assemble, join and combine materials in order to make a product</p> <p>Cut, shape and join fabric to make a simple product. Use basic sewing techniques</p> <p>Choose and use appropriate finishing techniques</p>	<p>Evaluate against their design criteria</p> <p>Evaluate their products as they are developed, identifying strengths and possible changes they might make</p> <p>Talk about their ideas, saying what they like and dislike about them</p> <p>Explore and evaluate a range of existing products</p>	<p>Cut food safely using a range of tools, confidently</p> <p>Follow and make a simple recipe</p> <p>Plan a simple meal with support</p> <p>Understand the basic principles of a healthy and varied diet.</p> <p>Understand where different food comes from</p> <p>To independently use some simple cookery equipment correctly (sieve, mixing bowls, grater, peeler, whisk)</p> <p>Be able to explain where different foods come from and why</p>
	<u>Vocabulary</u>			
	<p>ideas</p> <p>generate</p> <p>observation</p> <p>purpose</p> <p>label</p>	<p>Fabric</p> <p>Materials</p> <p>Measure</p> <p>accurate</p> <p>structure</p> <p>components</p> <p>join/combine</p> <p>template</p> <p>cut</p> <p>stitch</p>	<p>evaluate</p> <p>design criteria</p> <p>functional</p> <p>fit for purpose</p>	<p>ingredients</p> <p>tools</p> <p>method</p> <p>evaluate</p> <p>root vegetables</p> <p>fish</p> <p>fruit</p> <p>grater</p> <p>peeler</p> <p>sieve</p>



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		needle thread mechanism lever sliders wheel axles product moving picture		whisk healthy varied diet spicy plain sweet savoury sour
Year 3	Generate ideas for an item, considering its purpose and the user/s Investigate and analyse existing products Identify a purpose and establish criteria for a successful product. Plan the order of their work before starting Explore, develop and communicate design proposals and criteria by modelling ideas Make drawings with labels when designing	Select tools and techniques for making their product Measure, mark out, cut, score and assemble components with more accuracy Work safely and accurately with a range of simple tools Think about their ideas as they make progress and be willing change things if this helps them improve their work Use finishing techniques strengthen and improve the appearance of their product using a range of equipment	Evaluate their product against original design criteria e.g. how well it meets its intended purpose Disassemble and evaluate familiar products	To know how to be hygienic and safe To make sure their dish looks attractive To describe how their combined ingredients came together To select from and use a wider range of materials and components including ingredients based on their function and aesthetic qualities
	<u>Vocabulary</u>			
	generate ideas investigate	Accurately cutting	requirement investigate	attractive combine



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	<p>analyse purpose criteria design proposals plan model annotated sketches labels research innovative functional appealing fit for purpose design criteria prototypes</p>	<p>shaping joining finishing measuring craft knife cutting mat materials components strengthen stiffen reinforce frame levers linkages loose pivot fixed pivot</p>	<p>analyse existing products functional properties aesthetic qualities</p>	<p>ingredients aesthetic qualities function knead shape oven gloves cooling racks recipe weighing scales sieves mixing bowls measuring jugs grams millilitres</p>
Year 4	<p>Generate ideas, considering the purposes for which they are designing</p> <p>Make labelled drawings from different views showing specific features</p> <p>Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail</p> <p>Evaluate products and identify criteria that can be used for their own designs</p>	<p>Select appropriate tools and techniques for making their product</p> <p>Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques</p> <p>Join and combine materials and components accurately in temporary and permanent ways</p> <p>Sew using a range of different stitches, weave and knit</p> <p>Measure, tape or pin, cut and join fabric with some accuracy</p>	<p>Evaluate their work both during and at the end of the assignment</p> <p>Evaluate their products carrying out appropriate tests</p>	<p>Prepare ingredients safely and hygienically using appropriate kitchen utensils</p> <p>Understand and apply the principles of a healthy and varied diet including a balance of food and drink using the eat well plate.</p> <p>Know how food is grown, reared and caught in Lincolnshire, the UK, Europe and the wider world.</p>



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	<u>Vocabulary</u>			
	features alternative methods evaluate process generate develop model annotated sketches technological design criteria cross section	electrical components finishing systems series circuits bulbs/bulb holder buzzers switches motors aesthetic qualities tie-dye dye dye bath fabric cotton elastic bands filling fabric pens stitch needles pens sewing thread	improvements product analysis investigate functional properties	principles hygienic healthy/varied diet balanced meal protein vitamins minerals carbohydrate seasonality nutritious prepare cook assemble kitchen equipment
Year 5	Generate ideas through brainstorming and identify a purpose for their product Draw up a specification for their design Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making if the first attempts fail	Select appropriate materials, tools and techniques Measure and mark out accurately Use skills in using different tools and equipment safely and accurately Cut and join with accuracy to ensure a good-quality finish to the product	Evaluate a product against the original design specification Evaluate it personally and seek evaluation from others	Name some varied ingredients and say which part of the world they come from Explain different food groups on the eat well plate knowing different food and drink contain different substances, nutrients, water and fiber needed for health Follow a simple recipe hygienically and safely



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	Use results of investigations, information sources, including ICT when developing design ideas			Prepare and cook a variety of predominantly savory dishes using a range of cooking techniques
	<u>Vocabulary</u>			
	specification investigations analyse generate develop model annotated sketches cross-sectional exploded diagrams prototypes pattern pieces computer aided design design criteria innovative functional appealing fit for purpose	Prototype Program Monitor Control Strengthen Stiffen Reinforce Stabilizing Joining Cutting Shaping finishing	Function Evaluate Investigate Product Analysis Improvements	seasonality healthy varied food groups nutritional benefit hygienic bacteria savoury techniques melt fry bake roast grill Mexican Chinese German
Year 6	Communicate their ideas through detailed labelled drawings Develop a design specification Explore, develop and communicate aspects of their design proposals by modelling their ideas in a variety of ways Plan the order of their work, choosing appropriate materials, tools and techniques	Select appropriate tools, materials, components and techniques Assemble components make working models Use tools safely and accurately Construct products using permanent joining techniques	Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests Record their evaluations using drawings with labels Evaluate against their original criteria and suggest ways that their product could be improved	Design simple seasonal recipes. Prepare a range of ingredients hygienically Prepare, assemble and cook ingredients Understand seasonality, and know where and how a variety



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		Make modifications as they go along Pin, sew and stitch materials together create a product Achieve a quality product		of ingredients are grown, reared, caught and processed.
	<u>Vocabulary</u>			
	Design Criteria Innovative Functional Appealing Fit for purpose generate develop model annotated sketches cross-sectional exploded diagrams prototypes step by step plan	refine monitor control template Prototypes Pattern pieces Stitches Textiles Functional properties Aesthetic properties Decorative techniques Fastenings Cam Mechanisms Mechanical Framework Dowel Pin hammer Vice Bench hook Junior hacksaws	critically evaluate Improvements Investigate Function feedback	seasonality grown, reared, caught, processed preserved healthy varied protein hygienic bacteria