	Skills	Knowledge	Key Vocabulary
EYFS	 <u>0-3 Years</u> Explore different materials, using all their senses to investigate them. Manipulate and play with different materials Use their imagination as they consider what they can do with different materials. Make simple models which express their ideas. <u>3-4 Years</u> Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park. Explore different materials freely, in order to develop their ideas about how to use them and what to make. Develop their own ideas and then decide which materials to use to express them. Join different materials and explore different textures. 	 To learn how to use a range of tools, e.g. scissors, hole punch, stapler, woodworking tools, rolling pins, pastry cutters. Learn how everyday objects work by dismantling things. Begin to understand some of the tools, techniques and processes involved in food preparation. Describe the taste and textures of some foods. Suggest some foods that are healthy. Have basic hygiene awareness. 	draw, ideas build, make bead, button, fabric, felt, scissors, sew materials, cello tape, glue stick, masking tape, paper clip, plasticine, ruler, straw like, don't like Apron, chop, cut, equipment, fork, knife, mix, spoon

Bubjee		
	Reception	
	Explore, use and refine a variety of	
	effects to express their feelings and	
	ideas	
	Return to and build on their previous	
	learning, refining ideas and developing	
	their ability to represent them.	
	Create collaboratively sharing ideas,	
	resources and skills.	
	Develop techniques for joining	
	materials – eg glue, adhesive tape	
	Children to use a range of tools with	
	care and precision	

Subje	ct: Art		
Year 1	Design:	<u>Mechanisms</u>	planning, investigating design, evaluate,
	 have own ideas 	• Explore and use sliders and levers.	make, user, purpose, ideas, product
	 explain what I want to do 	Understand that different mechanisms	
	 explain what my product is for, and 	produce different types of movement.	joining and finishing techniques, tools, fabrics
	how it will work	 Know and use technical vocabulary 	and components, template, pattern pieces,
	 use pictures and words to plan, 	relevant to the project.	mark out, join, decorate, finish, slider, lever,
	begin to use models		pivot, slot, bridge/guide, card, masking tape,
	 design a product for myself 	<u>Textiles:</u>	paper fastener, join, pull, push, up, down,
	following design criteria	 Understand how simple 3-D textile 	straight, curve, forwards, backwards
	 research similar existing products 	products are made, using a template	totation and Contability products and
		to create two identical shapes.	joining and finishing techniques,
	<u>Make:</u>	Understand how to join fabrics using	tools, fabrics and components, template,
	 explain what I'm making and why 	different techniques e.g. running	pattern pieces, mark out, join, decorate, finish
	 consider what I need to do next 	stitch, glue, over stitch, stapling.	IIIISII
	 select tools/equipment to cut, 	• Explore different finishing techniques	fruit and vegetable names, names of
	shape, join, finish and explain	Know and use technical vocabulary	equipment and utensils sensory vocabulary
	choices	relevant to the project.	e.g. soft, juicy, crunchy, sweet, sticky, smooth,
	 measure, mark out, cut and shape, 	Food and Nutrition.	sharp, crisp, sour, hard flesh, skin, seed, pip,
	with support	Food and Nutrition:	core, slicing, peeling, cutting, squeezing,
	choose suitable materials and	 Understand where a range of fruit and vagatables some from a g formed or 	healthy diet, choosing, ingredients
	explain choices	vegetables come from e.g. farmed or grown at home.	,
	 try to use finishing techniques to make much back as a d 	 Understand and use basic principles of 	
	make product look good	a healthy and varied diet to prepare	
	 work in a safe and hygienic manner 	dishes, including how fruit and	
	Evaluate:	vegetables are part of The Eatwell	
		plate.	
	 talk about my work, linking it to what I was asked to do 	 Know and use technical and sensory 	
	WHAT I WAS ASKED TO DO	vocabulary relevant to the project.	

Subje	ct: Art		
	 talk about existing products considering: use, materials, how they work, audience, where they might be used talk about existing products, and say what is and isn't good talk about things that other people have made begin to talk about what could make product better 		
	 Food and Nutrition: wash hands & clean surfaces describe textures (tasting) think of interesting ways to decorate food say where some foods come from, (i.e. plant or animal) describe differences between some food groups (i.e. sweet, vegetable etc.) discuss how fruit and vegetables are healthy cut, peel and grate safely, with support 		
Year 2	Design:	<u>Mechanisms</u>	investigating, planning, design, make,
	 have own ideas and plan what to do next 	 Explore and use wheels, axles and axle holders. 	evaluate, user, purpose, ideas, design criteria, product, function
	next	noiders.	product, function

Subject: Art			
<u>Make</u>	 explain what I want to do and describe how I may do it explain purpose of product, how it will work and how it will be suitable for the user describe design using pictures, words, models, diagrams, begin to use ICT design products for myself and others following design criteria choose best tools and materials, and explain choices use knowledge of existing products to produce ideas explain what I am making and why it fits the purpose make suggestions as to what I need to do next. join materials/components together in different ways measure, mark out, cut and shape materials and components, with support. describe which tools I'm using and why choose suitable materials and explain choices depending on characteristics. 	 Distinguish between fixed and freely moving axles. Know and use technical vocabulary relevant to the project. Structure: Know how to make freestanding structures stronger, stiffer and more stable. Know and use technical vocabulary relevant to the project. Food and Nutrition: Understand where a range of fruit and vegetables come from e.g. farmed or grown at home. Understand and use basic principles of a healthy and varied diet to prepare dishes, including how fruit and vegetables are part of The eatwell plate. Know and use technical and sensory vocabulary relevant to the project. 	vehicle, wheel, axle, axle holder, chassis, body, cab assembling, cutting, joining, shaping, finishing, fixed, free, moving, mechanism names of tools, equipment and materials used cut, fold, join, fix structure, wall, tower, framework, weak, strong, base, top, underneath, side, edge, surface, thinner, thicker, corner, point, straight, curved, metal, wood, plastic circle, triangle, square, rectangle, cuboid, cube, cylinder fruit and vegetable names, names of equipment and utensils sensory vocabulary e.g. soft, juicy, crunchy, sweet, sticky, smooth, sharp, crisp, sour, hard flesh, skin, seed, pip, core, slicing, peeling, cutting, squeezing, healthy diet, choosing, ingredients

Subjec	Subject: Art	
	use finishing techniques to make	
	product look good	
	 work safely and hygienically 	
	Evaluate:	
	describe what went well, thinking	
	about design criteria	
	talk about existing products	
	considering: use, materials, how they	
	work,	
	 audience, where they might be used; 	
	express personal opinion	
	evaluate how good existing products	
	are	
	talk about what I would do differently	
	if I were to do it again and why	
	Food and Nutrition:	
	 explain hygiene and keep a hygienic 	
	kitchen	
	describe properties of ingredients and	
	importance of varied diet	
	 say where food comes from (animal, 	
	underground etc.)	
	describe how food is farmed, home-	
	grown, caught	
	draw eat well plate; explain there are	
	groups of food	
	describe "five a day"	

Subje			1
	 cut, peel and grate with increasing confidence and independence 		
Year 3	 Design: begin to research others' needs show design meets a range of requirements describe purpose of product follow a given design criteria have at least one idea about how to create product create a plan which shows order, equipment and tools describe design using an accurately labelled sketch and words make design decisions explain how product will work make a prototype begin to use computers to show design 	 Textiles: Know how to strengthen, stiffen and reinforce existing fabrics. Understand how to securely join two pieces of fabric together. Understand the need for patterns and seam allowances. Know and use technical vocabulary relevant to the project. Mechanisms: Understand and use lever and linkage mechanisms. Distinguish between fixed and loose pivots. Know and use technical vocabulary relevant to the project. 	user, purpose, design, model, evaluate, prototype, annotated sketch, functional, innovative, investigate, label, drawing, function, planning, design criteria, annotated sketch, appealing fabric, names of fabrics, fastening, compartment, zip, button, structure, finishing technique, strength, weakness, stiffening, templates, stitch, seam, seam allowance mechanism, lever, linkage, pivot, slot, bridge, guide system, input, process, output linear, rotary, oscillating, reciprocating name of products, names of equipment, utensils, techniques and ingredients texture, taste, sweet, sour,
	 Make: select suitable tools/equipment, explain choices; begin to use them accurately select appropriate materials, fit for purpose. work through plan in order consider how good product will be 	 Food and Nutrition: Know how to use appropriate equipment and utensils to prepare and combine food. Know about a range of fresh and processed ingredients appropriate for their product, and whether they are grown, reared or caught. 	hot, spicy, appearance, smell, preference, greasy, moist, cook, fresh, savoury, hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal, harvested healthy/varied diet

 begin to measure, mark out, cut and shape materials/components with some accuracy 	 Know and use relevant technical and sensory vocabulary appropriately. 	
 begin to assemble, join and combine materials and components with some accuracy begin to apply a range of finishing techniques with some accuracy 		
 iook at design criteria while designing and making use design criteria to evaluate finished product say what I would change to make design better begin to evaluate existing products, considering: how well they have been made, materials, whether they work, how they have been made, fit for purpose begin to understand by whom, when and where products were designed learn about some inventors/designers/ engineers/chefs/manufacturers of ground-breaking products 		

Subje	ct: Art		
	 carefully select ingredients use equipment safely make product look attractive think about how to grow plants to use in cooking begin to understand food comes from UK and wider world describe how healthy diet= variety/balance of food/drinks explain how food and drink are needed for active/healthy bodies. prepare and cook some dishes safely and hygienically grow in confidence using some of the following techniques: peeling, chopping, slicing, grating, mixing, spreading, kneading 		
Year 4	 Design: use research for design ideas show design meets a range of requirements and is fit for purpose begin to create own design criteria have at least one idea about how to create product and suggest improvements for design. produce a plan and explain it to others say how realistic plan is include an annotated sketch 	 Structure Develop and use knowledge of how to construct strong, stiff shell structures. Develop and use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes. Know and use technical vocabulary relevant to the project. Electrical Systems: Understand and use electrical systems in their products linked to science coverage. 	shell structure, three-dimensional (3-D) shape, net, cube, cuboid, prism, vertex, edge, face, length, width, breadth, capacity, marking out, scoring, shaping, tabs, adhesives, joining, assemble, accuracy, material, stiff, strong, reduce, reuse, recycle, corrugating, ribbing, laminating, font, lettering, text, graphics, decision series circuit, fault, connection, toggle switch, push-to-make switch, push-to-break switch, battery, battery holder, bulb, bulb holder,

wire, insulator, conductor, crocodile clip,

Make: • r • k • c • s • s • s • s • s • s • s • s • s • s	ct: Art		
	 make and explain design decisions considering availability of resources explain how product will work make a prototype begin to use computers to show design. Make: select suitable tools and equipment, explain choices in relation to required techniques and use accurately select appropriate materials, fit for purpose; explain choices work through plan in order to realise if product is going to be good quality measure, mark out, cut and shape materials/components with some accuracy assemble, join and combine materials and components with some accuracy apply a range of finishing techniques with some accuracy 	 Apply their understanding of computing to program and control their products. Know and use technical vocabulary relevant to the project. Food and Nutrition: Know how to use appropriate equipment and utensils to prepare and combine food. Know about a range of fresh and processed ingredients appropriate for their product, and whether they are grown, reared or caught. Know and use relevant technical and sensory vocabulary appropriately. 	control, program, system, input device, output device name of products, names of equipment, utensils, techniques and ingredients texture, taste, sweet, sour, hot, spicy, appearance, smell, preference, greasy, moist, cook, fresh, savoury, hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal, harvested healthy/varied diet
ā	 refer to design criteria while designing and making use criteria to evaluate product 		

Subject: Art		
Subject: Art	begin to explain how I could improve original design evaluate existing products, considering: how well they've been made, materials, whether they work, how they have been made, fit for purpose discuss by whom, when and where products were designed	
•	research whether products can be recycled or reused know about some inventors/designers/ engineers/chefs/manufacturers of ground-breaking products	
Food	and nutrition:	
•	explain how to be safe/hygienic think about presenting product in interesting/ attractive ways understand ingredients can be fresh, pre-cooked or processed begin to understand about food being grown, reared or caught in the UK or wider world describe eat well plate and how a healthy diet=variety / balance of food and drinks	

Subje	ct: Art		
	 explain importance of food and drink for active, healthy bodies prepare and cook some dishes safely and hygienically use some of the following techniques: peeling, chopping, slicing, grating, mixing, spreading, kneading and baking 		
Year 5	 Design: use internet and questionnaires for research and design ideas take a user's view into account when designing begin to consider needs/wants of individuals/groups when designing and ensure product is fit for purpose create own design criteria have a range of ideas produce a logical, realistic plan and explain it to others. use cross-sectional planning and annotated sketches make design decisions considering time and resources. clearly explain how parts of product will work. 	 Mechanisms: To select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities. To understand and use mechanical systems in products (gears, pulleys, cams, levers and linkages). Electrical Systems: To understand how a simple circuit is made. To understand and use electrical systems in their products (series circuits, incorporating switches, bulbs, buzzers and motors) 	design decisions, functionality, authentic, user, purpose, design specification, design brief, innovative, research, evaluate, design criteria, annotate, evaluate, mock up, prototype Transference, forces, mechanisms, levers, winding, pulley, gear, rotary, linear, cams, innovative, cams, linkages, levers pulley, drive belt, gear, rotation, spindle, driver, follower, ratio, transmit, axle, motor, circuit, switch, circuit diagram, annotated drawings, exploded diagrams, mechanical system, electrical system, input, process, output ingredients, yeast, dough, bran, flour, wholemeal, unleavened, baking soda, spice, herbs fat, sugar, carbohydrate, protein, vitamins, nutrients, nutrition, healthy, varied, gluten, dairy, allergy, intolerance, savoury,

 ct: Art model and refine design ideas by 		source, seasonality utensils, combine, fold,
making prototypes and using pattern		knead, stir, pour, mix, rubbing in, whisk, beat,
pieces.	Food and Nutrition:	roll out, shape, sprinkle, crumble
use computer-aided designs	 Know how to use utensils and equipment including heat sources to 	
Make:	prepare and cook food.	
 use selected tools/equipment with good level of precision produce suitable lists of tools, equipment/materials needed select appropriate materials, fit for purpose; explain choices, considering functionality create and follow detailed step by-step plan explain how product will appeal to an audience mainly accurately measure, mark out, cut and shape materials/components mainly accurately assemble, join and combine materials/components mainly accurately apply a range of finishing techniques use techniques that involve a small number of steps 	 Understand about seasonality in relation to food products and the source of different food products. Know and use relevant technical and sensory vocabulary 	
 begin to be resourceful with practical problems Evaluate: 		

Subject: Art		
•	evaluate quality of design while	
	designing and making	
•	evaluate ideas and finished product	
	against specification, considering	
	purpose and appearance.	
•	test and evaluate final product	
•	evaluate and discuss existing products,	
	considering: how well they've been	
	made, materials, whether they work,	
	how they have been made, fit for	
	purpose	
•	begin to evaluate how much products	
	cost to make and how innovative they	
	are	
•	research how sustainable materials	
	are	
	talk about some key	
	inventors/designers/	
	engineers/chefs/manufacturer	
	and nutrition:	
•	explain how to be safe / hygienic and	
	follow own guidelines	
•	present product well - interesting,	
	attractive, fit for purpose	
•	begin to understand seasonality of	
	foods	

Subje	ct: Art		
	 understand food can be grown, reared or caught in the UK and the wider world describe how recipes can be adapted to change appearance, taste, texture, aroma explain how there are different substances in food / drink needed for health prepare and cook some savoury dishes safely and hygienically including, where appropriate, use of heat source use range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. 		
Year 6	 Design: draw on market research to inform design use research of user's individual needs, wants, requirements for design identify features of design that will appeal to the intended user create own design criteria and specification come up with innovative design ideas 	 Textiles: Produce a 3-D textile product from a combination of accurately made pattern pieces, fabric shapes and different fabrics. Understand how fabrics can be strengthened, stiffened and reinforced where appropriate. Know and use technical vocabulary relevant to the project. Electrical Systems: 	function, innovative, design specification, design brief, user, purpose design brief, design specification, prototype, annotated sketch, purpose, user, innovation, research, functional, mock-up, prototype seam, seam allowance, wadding, reinforce, right side, wrong side, hem, template, pattern pieces, name of textiles and fastenings used, pins, needles, thread, pinking shears, fastenings,

sectional planning and exploded science coverage (series circuits, circuit, switch, circuit diagram, annotated	use annotated sketches, cross	systems in their products linked to	driver, follower, ratio, transmit, axle, motor, circuit, switch, circuit diagram, annotated drawings, exploded diagrams, mechanical system, electrical system, input, process, output ingredients, yeast, dough, bran, flour, wholemeal, unleavened, baking soda, spice, herbs fat, sugar, carbohydrate, protein,
	 make design decisions, considering, resources and cost clearly explain how parts of design will work, and how they are fit for purpose independently model and refine design ideas by making 	 incorporating switches, bulbs, buzzers and motors) Apply their understanding of computing to program, monitor and control their products. Know and use technical vocabulary relevant to the project. 	system, electrical system, input, process, output ingredients, yeast, dough, bran, flour, wholemeal, unleavened, baking soda, spice, herbs fat, sugar, carbohydrate, protein, vitamins, nutrients, nutrition, healthy, varied,
 make design decisions, considering, resources and cost clearly explain how parts of design will work, and how they are fit for purpose independently model and refine 	 prototypes and using pattern pieces use computer-aided designs Make: use selected tools and equipment precisely produce suitable lists of tools, equipment, materials needed, considering constraints select appropriate materials, fit for purpose; explain choices, considering functionality and aesthetics create, follow, and adapt detailed step-by-step plans 	 Know how to use utensils and equipment including heat sources to prepare and cook food. Understand about seasonality in relation to food products and the source of different food products. Know and use relevant technical and 	gluten, dairy, allergy, intolerance, savoury, source, seasonality utensils, combine, fold, knead, stir, pour, mix, rubbing in, whisk, beat
 make design decisions, considering, resources and cost clearly explain how parts of design will work, and how they are fit for purpose independently model and refine design ideas by making prototypes and using pattern pieces use computer-aided designs Make: use selected tools and equipment precisely produce suitable lists of tools, equipment, materials needed, considering constraints select appropriate materials, fit for purpose; explain choices, considering functionality and aesthetics create, follow, and adapt detailed step-by-step plans 	audience; make changes to improve		

Subjec	ect: Art	
	 accurately measure, mark out, cut and 	
	shape materials/components	
	 accurately assemble, join and combine 	
	materials/component	
	 accurately apply a range of finishing 	
	techniques	
	 use techniques that involve a number 	
	of steps	
	be resourceful with practical problems	
	Evaluate:	
	 evaluate quality of design while 	
	designing and making; is it fit for	
	purpose?	
	 keep checking design is best it can be. 	
	 evaluate ideas and finished product 	
	against specification, stating if it's fit	
	for purpose	
	 test and evaluate final product; explain 	
	what would improve it and the effect	
	different resources may have had do	
	thorough evaluations of existing	
	products considering: how well	
	they've been made, materials,	
	whether they work, how they've been	
	made, fit for purpose	
	 evaluate how much products cost to 	
	make and how innovative they are	
	research and discuss how sustainable	
	materials are	

Subjec	ct: Art	
	 consider the impact of products 	
	beyond their intended purpose	
	 discuss some key inventors/designers/ 	
	engineers/	
	 chefs/manufacturers of ground- 	
	breaking products	
	Food and nutrition:	
	 understand a recipe can be adapted by 	
	adding / substituting ingredients	
	 explain seasonality of foods 	
	 learn about food processing methods 	
	 name some types of food that are 	
	grown, reared or caught in the UK or	
	wider world	
	 adapt recipes to change appearance, 	
	taste, texture or aroma.	
	 describe some of the different 	
	substances in food and drink, and how	
	they can affect health	
	• prepare and cook a variety of savoury	
	dishes safely and hygienically	
	including, where appropriate, the use	
	of heat source.	
	 use a range of techniques confidently 	
	such as peeling, chopping, slicing,	
	grating, mixing.	