



DESIGN			
	KNOWLEDGE	SKILLS	VOCABULARY
Year 1	<ul style="list-style-type: none"> Know what a purposeful product is Identify what makes product appealing Describe the purpose of their product and who their target audience is Explore the characteristics of materials, e.g. folding paper to make it stiffer. Explore how mechanisms can be used in different ways, e.g. joints that allow movement 	<ul style="list-style-type: none"> Draw on their own experience to help generate ideas Suggest ideas and explain what they are going to do Identify a target group for what they intend to design and make Model their ideas in card and paper Develop their design ideas applying findings from their earlier research 	Product, ideas, target audience, suitable, model, materials, components, construction, templates, design, make, labels, design research, criteria , purpose , functional , appealing
Year 2	<ul style="list-style-type: none"> Know what a purposeful product is and why it is functional Identify what makes product appealing and say why Use knowledge of existing products to help come up with ideas. Describe the purpose of their product, who their target audience is and the process of how they will make it Describe how their products will work and how they're suitable for target audience Know the characteristics of materials, e.g. plaiting yarn to make it stronger. Know how mechanisms can be used in different ways, e.g. winding mechanisms, wheels and axels. 	<ul style="list-style-type: none"> Generate ideas by drawing on their own and other people's experiences Develop their design ideas through discussion, observation, drawing modelling and use of information and communication technology Model ideas by exploring materials, components, constructions kits and by making templates Identify a purpose for what they intend to design and make Identify simple design criteria Make simple drawings and label parts 	
Year 3	<ul style="list-style-type: none"> Gather information about the needs and wants of individuals or groups. Describe the purpose of their products. Indicate design features of their products. Begin to take account of the availability of resources. Know how the working characteristics of materials affects use. Understand how materials can be combined and mixed to create more useful properties. Know how mechanisms can be used to make things move Know how electrical circuits, can be used to achieve results that work. 	<ul style="list-style-type: none"> Generate ideas for an item considering its purpose and the user/s Identify a purpose and establish criteria for a successful product. Plan the order of their work before starting Explore, develop and communicate design proposals by modelling ideas using prototypes. Make drawings with labels when designing 	Generate, ideas, research, design criteria, functional, purposeful, features, successful, proposals, sketches, cross – sectional drawing, appeal, model, communicate, pattern pieces, methods, decision, availability, different viewpoints,

Year 4	<ul style="list-style-type: none"> • Gather information about the needs and wants of individuals or groups. • Indicate design features of their products that will appeal to intended users • Evaluate products and identify criteria that can be used for their own designs • Make design decisions that take account of the availability of resources. • Know how the working characteristics of materials affect use. • Understand how materials can be combined and mixed to create more useful properties. • Know how mechanisms can be used to make things move • Know how electrical circuits, can be used to achieve results that work. 	<ul style="list-style-type: none"> • Independently generate ideas considering the purposes for which they are designing • Use annotated sketches, some cross-sectional drawing from different views showing specific features • 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 • Model ideas using prototypes and pattern pieces. 	prototypes, innovative, annotated
Year 5	<ul style="list-style-type: none"> • Explore how the working characteristics of materials affect use. • Understand how materials can be combined and mixed to create more useful properties. • Know how mechanisms can be used to make things move, using a range of equipment including ICT control program • Know how electrical circuits, can be used to achieve results that work. 	<ul style="list-style-type: none"> • 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 • Use results of investigations, information sources, including ICT when developing design ideas 	Characteristics, combined, mixed, properties, mechanisms, equipment, materials, generate, ideas, brainstorming, proposals, processes, alternative methods, investigations, techniques, specification
Year 6	<ul style="list-style-type: none"> • Know how the working characteristics of materials affect use. • Understand how materials can be combined and mixed to create more useful properties. • Know how mechanisms can be used to make things move, using a range of equipment including an ICT control program • Know how electrical circuits, can be used to achieve results that work. 	<ul style="list-style-type: none"> • 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 • Independently plan the order of their work, choosing appropriate materials, tools and techniques 	specification

MAKE			
	KNOWLEDGE	SKILLS	VOCABULARY
Year 1	<ul style="list-style-type: none"> Know what they want to construct. Know which resources and tool to choose. Explain which tools they are using. Know how to use tools safely. 	<ul style="list-style-type: none"> Make their design using appropriate techniques With help measure, mark out, cut and shape a range of materials Use tools e.g. scissors and a hole punch safely Assemble, join and combine materials and components together using a variety of temporary methods e.g. glues or masking tape Use simple finishing techniques to improve the appearance of their product 	Resources, tools, safely, construct, techniques, measure, cut, score, materials, assemble, join, combine, methods, appearance, product, sew, procedure, components
Year 2	<ul style="list-style-type: none"> Know what they want to construct and the procedure they will use. Begin to select tools and materials; use vocab' to name and describe them. Know which resources and tool to choose and state reasons for choice. Know how to use tools safely. 	<ul style="list-style-type: none"> Measure, cut and score with some accuracy Use hand tools safely and appropriately Assemble, join and combine materials in order to make a product Join things together in different ways. Cut, shape and join fabric to make a simple garment. Use basic sewing techniques Choose and use appropriate finishing techniques 	
Year 3	<ul style="list-style-type: none"> Select tools and techniques for making their product. Explain their choices Order the main stages of making. Work safely and accurately with a range of simple tools. 	<ul style="list-style-type: none"> Measure, mark out, cut, score and assemble components with more accuracy Think about their ideas as they make progress and be willing change things if this helps them improve their work Measure, tape or pin, cut and join fabric with some accuracy Use finishing techniques strengthen and improve the appearance of their product using a range of equipment including ICT 	Stages, tools, progress, equipment, safely, accurate, measure, cut, pin, shape, join, fabric, strength, appearance, product, temporary, permanent, sew, stitch, weave, knit, logical, expertise, assemble
Year 4	<ul style="list-style-type: none"> Select appropriate tools and techniques for making their product Order the main stages of making in logical steps. Adapt ideas as they progress, if they see the need arises. Show a good knowledge of expertise when using a range of tools and equipment. Follow procedures for safety Know the need to produce something that will be liked by others. 	<ul style="list-style-type: none"> Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques Join and combine materials and components accurately in temporary and permanent ways Sew using a range of different stitches, weave and knit Measure, tape or pin, cut and join fabric with some accuracy Use simple graphical communication techniques 	

Year 5	<ul style="list-style-type: none"> Select appropriate materials, tools and techniques Explain their choices, giving evidence. Produce appropriate lists of tools, equipment and materials that they will need. Order the stages of the making process, in logical steps. Formulate step-by-step plans as guide to making. Follow procedures for safety. 	<ul style="list-style-type: none"> Measure and mark out accurately Use skills in using different tools and equipment safely and accurately Weigh and measure accurately (time, dry ingredients, liquids) Cut and join with accuracy to ensure a good-quality finish to the product Pin, sew and stitch materials together to create a product Use simple graphical communication techniques Show perseverance through different stages of the making process. 	Appropriate materials, mark out, accurate, weigh, quality, perseverance
Year 6	<ul style="list-style-type: none"> Select appropriate tools, materials, components and techniques Explain their choices, giving evidence. Produce appropriate lists of tools, equipment and materials that they will need. Order the stages of the making process, in logical steps. Formulate step-by-step plans as guide to making. Follow procedures for safety. Make modifications as they go along 	<ul style="list-style-type: none"> Assemble components make working models Use tools safely and accurately Construct products using permanent joining techniques Pin, sew and stitch materials together create a product Achieve a quality product 	

EVALUATE			
	KNOWLEDGE	SKILLS	VOCABULARY
Year 1	<ul style="list-style-type: none"> Know what materials products are made from 	<ul style="list-style-type: none"> Explain positives and things to improve for existing products As they work, identify strengths and possible changes they might make to refine their existing design Talk about their design ideas and compare to their finished product 	Product, purposeful, target audience, suitable, model, materials, construction, make, criteria, functional, appealing, components,
Year 2	<ul style="list-style-type: none"> Know and identify what materials products are made from 	<ul style="list-style-type: none"> Explore and evaluate existing products mainly through discussions, comparisons and simple written evaluations As they work, identify strengths and possible changes they might make to refine their existing design Evaluate their products and ideas against their simple design criteria 	
Year 3	<ul style="list-style-type: none"> Know what materials/ ingredients products are made from and suggest reasons for this 	<ul style="list-style-type: none"> Explore and evaluate existing products, explaining the purpose of the product Consider their design criteria as they make progress and are willing to alter their plans, Evaluate their product against their original design criteria 	Design criteria, features, successful, appeal, decision, different viewpoints, innovative,

Year 4	<ul style="list-style-type: none"> Know what materials/ ingredients products are made from and suggest reasons for this based on characteristics 	<ul style="list-style-type: none"> Explore and evaluate existing products, explaining the purpose of the product and whether it is designed well to meet the intended purpose Consider their design criteria as they make progress and are willing to alter their plans, sometimes considering the views of others if this helps them to improve their product Evaluate their product against their original design criteria, identifying successes and areas for improvement 	
Year 5	<ul style="list-style-type: none"> Identify what materials/ ingredients products are made from and suggest alternatives 	<ul style="list-style-type: none"> Explore and evaluate existing products, comparing them with other products on the market Evaluate the quality of design, manufacture and fitness for purpose of products as they design and make Evaluate their ideas and products against the original design criteria, making suggestions for improvements 	Characteristics, combined, mixed, properties, mechanisms, processes, alternative methods, specification
Year 6	<ul style="list-style-type: none"> Identify what materials/ ingredients products are made from and analyse possible alternatives Understand how key events and individuals in design and technology have helped shape the world. 	<ul style="list-style-type: none"> Complete detailed competitor analysis of other products on the market Critically evaluate the quality of design, manufacture and fitness for purpose of products as they design and make Evaluate their ideas and products against the original design criteria, making changes as needed. 	

TECHNICAL KNOWLEDGE			
	KNOWLEDGE	SKILLS	VOCABULARY
Year 1	<ul style="list-style-type: none"> Understand that different mechanisms produce different types of movement. 	<ul style="list-style-type: none"> Explore and use sliders and levers in their products Build simple structures Explore ways of making their structure stronger and more stable 	slider, lever, slot, bridge/guide, card, masking tape, paper fastener, join, pull, push, up, down, straight, curve, forwards, backwards, pivot
Year 2	<ul style="list-style-type: none"> Distinguish between fixed and freely moving axles. 	<ul style="list-style-type: none"> Make vehicles with construction kits which contain free running wheels. Use a range of materials to create models with wheels and axles e.g. tubes, dowel, cotton reels. 	vehicle, wheel, axle, axle holder, body, cab assembling, cutting, joining, shaping, finishing, fixed, free, moving, mechanism names of tools, equipment and materials used, chassis
Year 3	<ul style="list-style-type: none"> Understand and use lever and linkage mechanisms. Distinguish between fixed and loose pivots. 	<ul style="list-style-type: none"> Use mechanical systems in their products (e.g. levers and linkages) Create shell or frame structures - strengthen frames with diagonal struts. Make structures more stable by giving them a wide base. Prototype frame and shell structures. 	linkage, system, input, process, output linear, rotary, oscillating, reciprocating

Year 4	<ul style="list-style-type: none"> Understand and use electrical systems in their products linked to science coverage. Apply their understanding of computing to program and control their products. 	<ul style="list-style-type: none"> Incorporate a circuit with a bulb or buzzer into a model. 	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, control, program, system, input device, output device
Year 5	<ul style="list-style-type: none"> Understand that mechanical and electrical systems have an input, process and an output. Understand how gears and pulleys can be used to speed up, slow down or change the direction of movement. 	<ul style="list-style-type: none"> Understand and use mechanical systems in their products (e.g. gears, pulleys and cams) Apply their understanding of how to reinforce and strengthen increasingly complex structures using a range of materials. 	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
Year 6	<ul style="list-style-type: none"> Understand and use electrical systems in their products linked to science coverage. Apply their understanding of computing to program, monitor and control their products. 	<ul style="list-style-type: none"> Incorporate motor and a switch into a model. Control and monitor a product using a computer. 	reed switch, toggle switch, push-to-make switch, push-to-break switch, light bulb, bulb holder, battery, battery holder, USB cable, wire, insulator, conductor, crocodile clip control, program, system, input device, output device, series circuit, tilt switch, parallel circuit, dependent resistor (LDR), light emitting diode (LED),

COOKING AND NUTRITION			
	KNOWLEDGE	SKILLS	VOCABULARY
Year 1	<ul style="list-style-type: none"> Begin to understand that all food comes from plants or animals. Explore the understanding that food has to be farmed, grown elsewhere (e.g. home) or caught. Start to understand how to name and sort foods into the five groups in 'The Eat well plate' Begin to understand that everyone should eat at least five portions of fruit and vegetables every day 	<ul style="list-style-type: none"> Know how to prepare simple dishes safely and hygienically, without using a heat source. Know how to use techniques such as cutting, peeling and grating. 	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
Year 2	<ul style="list-style-type: none"> Understand that all food comes from plants or animals. Know that food has to be farmed, grown elsewhere (e.g. home) or caught. Understand how to name and sort foods into the five groups in 'The Eat well plate' Know that everyone should eat at least five portions of fruit and vegetables every day. 	<ul style="list-style-type: none"> Demonstrate how to prepare simple dishes safely and hygienically, without using a heat source. Demonstrate how to use techniques such as cutting, peeling and grating. 	
Year 3	<ul style="list-style-type: none"> Start to know that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world. Start to understand that a healthy diet is made up from a variety and balance of different food and drink, as depicted in 'The Eat well plate' Begin to know that to be active and healthy, food and drink are needed to provide energy for the body. 	<ul style="list-style-type: none"> Understand how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source. Begin to understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. 	name of products, names of techniques and ingredients, texture, taste, sweet, sour, hot, spicy, appearance, smell, greasy, moist, cook, fresh, savoury, hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal, harvested, healthy/ varied diet, preference
Year 4	<ul style="list-style-type: none"> Understand that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world. Know that a healthy diet is made up from a variety and balance of different food and drink, as depicted in 'The Eat well plate' Know that to be active and healthy, food and drink are needed to provide energy for the body. 	<ul style="list-style-type: none"> Understand how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source. Know how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. 	
Year 5	<ul style="list-style-type: none"> Understand that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world. Begin to understand that seasons may affect the food available. Understand how food is processed into ingredients that can be eaten or used in cooking. Begin to understand that different food and drink contain different substances – nutrients, water and fibre – that are needed for health. 	<ul style="list-style-type: none"> Know how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source. Start to understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. 	ingredients, yeast, dough, bran, flour, wholemeal, baking soda, spice, herbs fat, sugar, carbohydrate, protein, vitamins, nutrients, nutrition, healthy, varied, unleavened

Year 6	<ul style="list-style-type: none"> • Know that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world. • Understand that seasons may affect the food available. • Understand how food is processed into ingredients that can be eaten or used in cooking. • Know different food and drink contain different substances – nutrients, water and fibre – that are needed for health. 	<ul style="list-style-type: none"> • Know how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source • Understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. 	gluten, dairy, allergy, savoury, source, seasonality utensils, combine, fold, knead, stir, pour, mix, rubbing in, whisk, beat, roll out, shape, sprinkle, crumble, intolerance
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