

Progression of Knowledge and Vocabulary

	Learning Objective		Substantial Knowledge (National Curriculum)	Skills	Technical Vocabulary <i>* see long term plan for additional unit specific vocab</i>
End of KS1	To master practical skills	Food	<ul style="list-style-type: none"> ➤ To know you follow a simple recipe to make food. ➤ To know the name of utensils and equipment needed for food. ➤ To know how to use utensils and equipment correctly. ➤ To know the principles of a healthy and varied diet. (Eat well plate). ➤ To know where food comes from. ➤ To use the basic principles of a healthy and varied diet to prepare dishes. 	<p>Select from and use a range of tools and equipment to perform practical tasks.</p> <p>Select from and use a wide range of materials and components, including ingredients.</p>	<p>Recipe, utensils, instruction, peeler, grater, knife, rolling pin,</p> <p>Cut, peel, grate, ingredients, knife, cutlery, hygienic, safety.</p> <p>Measure, weigh, scale, accuracy, grams, pounds (LB), ounces (OZ), millilitres (ML), teaspoon, tablespoon, dessert spoon.</p>
		Materials	<ul style="list-style-type: none"> ➤ To know the name of tools used to cut. ➤ To know how to measure accurately using standard and non-standard measurements. ➤ To know how to read a scale to measure. ➤ To know shaping techniques. ➤ To know the names of joining techniques. ➤ To know the names of resources required to join and shape. ➤ To select from and use a range of tools and equipment to perform practical tasks (cutting, shaping, joining, finishing). ➤ To select from and use a wide range of materials and components including construction materials, textiles and ingredients, according to their characteristics. 	<p>Cut materials safely using tools provided.</p> <p>Measure and mark out to the nearest centimetre</p> <p>Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling)</p> <p>Demonstrate a range of joining techniques (such as gluing, using hinges or combining materials to strengthen).</p>	<p>Material, tool, cut, curl, safely, centimetre, glue, fold, tear. Measure, mark, ruler, tape measure, shaping, range, hinges, combine, strengthen, technique, scale</p>
		Textiles	<ul style="list-style-type: none"> ➤ To understand what textiles are. ➤ To know how to perform a simple running stitch. ➤ To know how to use, dyeing, embellishment and printing techniques. ➤ To understand how to join textiles together. ➤ To select from and use a range of tools and equipment to perform practical tasks (cutting, shaping, joining, finishing). ➤ To select from and use a wide range of materials and components including construction materials, textiles and ingredients, according to their characteristics. 	<p>Shape textiles using templates.</p> <p>Join textiles using running stitch.</p> <p>Colour and decorate textiles using a number of techniques (such as dyeing, adding sequins or printing)</p>	<p>Shape, textile, template, running stitch, techniques, dyeing, sequins, printing, decorate</p>
		Electricals and electronics	<ul style="list-style-type: none"> ➤ To know what a battery is and what it is used for. ➤ To know how batteries can be damaged. 	<p>Diagnose faults in battery – operated devices (such as low battery, water damage or battery terminal damage)</p>	<p>damage, battery, diagnose, fault, water damage, operated, device, battery terminal damage</p>
		Computing	<ul style="list-style-type: none"> ➤ To know what software is and how it is used. 	<p>Model designs using software.</p>	<p>Model, design, software</p>

		<ul style="list-style-type: none"> ➤ To generate, develop, model and communicate ideas through talking, drawing, templates, mock ups and where appropriate IT. 		
	Construction	<ul style="list-style-type: none"> ➤ To know what materials are. ➤ To know how techniques to make and strengthen products. ➤ To select from and use a range of tools and equipment to perform practical tasks (cutting, shaping, joining, finishing). ➤ To select from and use a wide range of materials and components including construction materials, textiles and ingredients, according to their characteristics. ➤ To build structures, exploring how they can be made stronger, stiffer and more stable. 	Use materials to practise drilling, screwing, gluing and nailing materials to make and strengthen products.	Glue, product, materials, drill, screw, nail, strengthen, ingredients, characteristics, joining, finishing, cutting, shaping, structures, stronger, stiffer, stable
	Mechanics	<ul style="list-style-type: none"> ➤ To know what levers, wheels and winding mechanisms are. ➤ To know how to design and create a product. ➤ To know how to use given mechanisms to create a product. ➤ To explore and use mechanisms (levers, sliders, wheels, axles) 	Create products using levers, wheels and winding mechanisms.	Mechanism, wheel, lever, winding, product, axles, slider, wheels
	To design, make, evaluate and improve	<ul style="list-style-type: none"> ➤ To know how to design a product based on a design criteria ➤ To know how to make and evaluate a product ➤ To know who a user is ➤ To know which software used to design. ➤ To design purposeful, functional, appealing products for themselves and other users based on design criteria. ➤ To generate, develop, model and communicate ideas through talking, drawing, templates, mock-ups, and where appropriate IT. ➤ To select from and use a range of tools and equipment to perform practical tasks (cutting, shaping, joining, finishing). ➤ To select from and use a wide range of materials and components including construction materials, textiles and ingredients, according to their characteristics. ➤ To explore and evaluate a range of existing products. ➤ To evaluate ideas and products against design criteria. 	<p>Design products that have a clear purpose and an intended user.</p> <p>Make products, refining the design as work progresses.</p> <p>Use software to design</p>	Design, product, purpose, user, refine, progress, software, functional, criteria, template, mock-up, cutting, shaping, joining, finishing, components, evaluate
	To take inspiration from design throughout history	<ul style="list-style-type: none"> ➤ To know how to compare designs ➤ To know how to critique ➤ To know how to investigate products 	<p>Explore objects and designs to identify likes and dislikes of the designs.</p> <p>Suggest improvements to existing designs.</p> <p>Explore how products have been created</p>	Design, explore, improvement, evaluate, objects, products

End of LKS2	To master practical skills	Food	<ul style="list-style-type: none"> ➤ To know what hygiene means and how to keep surfaces, utensils, and hands clean. ➤ To know how to read a scale. ➤ To understand units of measure. ➤ To know how to follow a recipe. ➤ To know the name of utensils and equipment needed for food. ➤ To know how to use utensils and equipment correctly. ➤ To know how to control an oven or hob for cooking. ➤ To understand and apply the principles of a healthy and varied diet. ➤ To prepare and cook a variety of predominately savoury dishes using a range of cooking techniques. ➤ To understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. 	<p>Prepare ingredients hygienically using appropriate utensils</p> <p>Measure ingredients to the nearest gram accurately Follow a recipe</p> <p>Assemble or cook ingredients (controlling the temperature of the oven or hob if cooking)</p>	<p>Recipe, utensils, instruction, peeler, grater, knife, rolling pin,</p> <p>Cut, peel, grate, ingredients, knife, cutlery, hygienic, safety.</p> <p>Measure, weigh, scale, accuracy, grams (G), kilogram (KG), pounds (LB), ounces (OZ), millilitres (ML), teaspoon, tablespoon, dessert spoon.</p> <p>Oven, hob, grill.</p> <p>Temperature, Celsius, gas mark, boiling point, simmer, lukewarm, melting point, freezing point.</p> <p>Seasonality, savoury, reared, caught, grown, processed.</p>
		Materials	<ul style="list-style-type: none"> ➤ To know how to use tools correctly. ➤ To be able to measure accurately. ➤ To know how materials are joined together. ➤ To know what the perimeter is and how to measure it. ➤ To know which technique is most effective. ➤ 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. 	<p>Cut materials accurately and safely by selecting appropriate tools.</p> <p>Measure and mark out to the nearest millimetre</p> <p>Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs)</p> <p>Select appropriate joining materials</p>	<p>Material, tool, cut, curl, safely, centimetre, glue, fold, tear. Measure, mark, ruler, tape measure, shaping, range, hinges, combine, strengthen, technique, scale, slots, cut outs</p>
		Textiles	<ul style="list-style-type: none"> ➤ To know what a seam and where it is ➤ To know how to use a seam allowance. ➤ To know how to use a needle and thread. ➤ To know different techniques when decorating textiles. ➤ To recognise and use different materials. ➤ To select from and use a wider range of materials and 	<p>Understand the need for a seam allowance.</p> <p>Join textiles with appropriate stitching.</p> <p>Select the most appropriate techniques to decorate textiles</p>	<p>Shape, textile, template, running stitch, techniques, dyeing, sequins, printing, decorate, aesthetic, components, construction, functional</p>

			components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.		
	Electricals and electronics	<ul style="list-style-type: none"> ➤ To understand how a simple circuit is made. ➤ To understand how series and parallel circuits are made. ➤ To understand and use electrical systems in their products (series circuits, incorporating switches, bulbs, buzzers and motors) 	Create series and parallel circuits	Wire, cell, battery, series, clip, parallel, bulbs, buzzers, motors, switches	
	Computing	<ul style="list-style-type: none"> ➤ To apply understanding of computing to program, monitor and control products. 	Control and monitor models using software designed for this purpose	Model, design, software, purpose, control, monitor	
	Construction	<ul style="list-style-type: none"> ➤ To select from and use a wide range of tools and equipment to perform practical tasks (cutting, shaping, joining, finishing). ➤ 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. 	Choose suitable techniques to construct products or to repair items. Strengthen materials using suitable techniques	Glue, product, materials, drill, screw, nail, strengthen, construct, repair, techniques, cutting, joining, shaping, aesthetic, functional	
	Mechanics	<ul style="list-style-type: none"> ➤ To understand and use mechanical systems in products (gears, pulleys, cams, levers and linkages). 	Use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product (such as levers, winding mechanisms, pulleys and gears)	Transference, forces, mechanisms, levers, winding, pulley, gear, cams, levers, linkages, mechanical	
	To design, make, evaluate and improve	<ul style="list-style-type: none"> ➤ To use research and develop design criteria to inform the design of innovative, functional, appealing products that re fit for purpose, aimed at particular individuals or groups. ➤ To generate, develop, model and communicate ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. ➤ To select from and use a wide range of tools and equipment to perform practical tasks (cutting, shaping, joining, finishing). 	Design with purpose by identifying opportunities to design Make products by working efficiently (such as by carefully selecting materials) Refine work and techniques as work progress continually evaluating the product design Use software to design and represent product designs	Materials, refine, product design, software, product, Design, product, purpose, user, refine, progress, software, innovative, prototypes, cross-sectional, annotated, exploded diagrams, pattern pieces, analyse	

		<ul style="list-style-type: none"> ➤ 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 investigate and analyse a range of existing products. ➤ To evaluate ideas and products against their own design criteria and consider the views of others to improve work. ➤ To understand how key events and individuals in DT have helped shape the world. 		
	<p>To take inspiration from design throughout history</p>	<ul style="list-style-type: none"> ➤ To identify great designers in all areas of study. ➤ To critique, evaluate and test ideas and products and the work of others. <p>To understand how key events and individuals in DT have helped shape the world.</p>	<p>Identify some of the great designers in all of the areas of study (including pioneers in horticultural techniques) to generate ideas for designs. Improve upon existing designs giving reasons for choices Disassemble products to understand how they work</p>	<p>Design, explore, improvement, evaluate, objects, products, horticultural, generate, disassemble, critique,</p>

End of UKS2	To master practical skills	Food	<ul style="list-style-type: none"> ➤ To understand and apply the principles of a healthy and varied diet. ➤ To prepare and cook a variety of predominately savoury dishes using a range of cooking techniques. ➤ To understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. 	<p>Understand the importance of correct storage and handling of ingredients (using knowledge of microorganisms)</p> <p>Measure accurately and calculate ratios of ingredients to scale up or down from a recipe</p> <p>Demonstrate a range of baking and cooking techniques</p> <p>Create and refine recipes including ingredients, methods, cooking times and temperatures</p>	<p>Recipe, utensils, instruction, peeler, grater, knife, rolling pin,</p> <p>Cut, peel, grate, ingredients, knife, cutlery, hygienic, safety.</p> <p>Measure, weigh, scale, accuracy, grams (G), kilogram (KG), pounds (LB), ounces (OZ), millilitres (ML), teaspoon, tablespoon, dessert spoon, ratios</p> <p>Oven, hob, grill.</p> <p>Temperature, Celsius, gas mark, boiling point, simmer, lukewarm, melting point, freezing point.</p> <p>Seasonality, savoury, reared, caught, grown, processed.</p>
		Materials	<ul style="list-style-type: none"> ➤ 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. 	<p>Cut materials with precision and refine the finish with appropriate tools (such as sanding wood after cutting or a more precise scissor cut after roughly cutting out a shape)</p> <p>Show an understanding of the qualities of materials to choose appropriate tools to cut and shape (such as the nature of fabric may require sharper scissors than would be used to cut paper)</p>	<p>Material, tool, cut, curl, safely, centimetre, glue, fold, tear. Measure, mark, ruler, tape measure, shaping, range, hinges, combine, strengthen, technique, scale, slots, cut outs, precise, aesthetic, components</p>
		Textiles	<ul style="list-style-type: none"> ➤ 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. 	<p>Join textiles with a combination of stitching techniques (such as back stitch for seams and running stitch to attach decoration)</p> <p>Use the qualities of materials to create suitable visual and tactile effects in the decoration of textiles (such as soft decoration for comfort on a cushion)</p>	<p>Shape, textile, template, running stitch, techniques, dyeing, sequins, printing, decorate, visual, tactile, soft decoration, comfort, aesthetic, components,</p>
		Electricals and electronics	<ul style="list-style-type: none"> ➤ To understand and use electrical systems in their products (series circuits, incorporating switches, bulbs, buzzers and motors) 	<p>Create circuits using electronics kits that employ a number of components (such as LEDs, resistors, transistor and chips)</p>	<p>Wire, cell, battery, series, clip, parallel, LEDs, resistors, transistor, chips, circuit, buzzers, resistors, motors</p>
		Construction	<ul style="list-style-type: none"> ➤ To select from and use a wide range of tools and equipment to perform practical tasks (cutting, shaping, joining, finishing). 	<p>Develop a range of practical skills to create products and repair items (such as cutting, drilling, screwing, nailing, gluing, filling and sanding)</p>	<p>Glue, product, materials, drill, screw, nail, strengthen, construct, repair, techniques, drill, screw, nail, file, sanding, aesthetic, functional, cutting, shaping, joining, finishing</p>

		<ul style="list-style-type: none"> ➤ 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. 		
	Mechanics	<ul style="list-style-type: none"> ➤ To understand and use mechanical systems in products (gears, pulleys, cams, levers and linkages). 	<p>Convert rotary motion to linear using cams</p> <p>Use innovative combinations of electronics (or computing and mechanics in product designs)</p>	<p>Transference, forces, mechanisms, levers, winding, pulley, gear, rotary, linear, cams, innovative, cams, linkages, levers</p>
To design, make, evaluate and improve		<ul style="list-style-type: none"> ➤ To use research and develop design criteria to inform the design of innovative, functional, appealing products that re fit for purpose, aimed at particular individuals or groups. ➤ To generate, develop, model and communicate ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. ➤ To select from and use a wide range of tools and equipment to perform practical tasks (cutting, shaping, joining, finishing). ➤ 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 investigate and analyse a range of existing products. ➤ To evaluate ideas and products against their own design criteria and consider the views of others to improve work. ➤ To understand how key events and individuals in DT have helped shape the world. 	<p>Design with the user in mind, motivated by the service a product will offer (rather than simply for profit)</p> <p>Make products through stages of prototypes, making continual refinements</p> <p>Ensure products have a high quality finish using art skills where appropriate</p>	<p>Materials, refine, product design, software, product, Design, product, purpose, user, refine, progress, software, service, prototypes, refinements, continual, innovative, annotated sketches, cross-sectional, computer-aided, pattern pieces, analyse,</p>
To take inspiration from design throughout history		<ul style="list-style-type: none"> ➤ To critique, evaluate and test ideas and products and the work of others. ➤ To understand how key events and individuals in DT have helped shape the world. 	<p>Combine elements of design from a range of inspirational designers through history giving reasons for choices</p> <p>Create innovative designs that improve upon existing products</p>	<p>Design, explore, improvement, evaluate, objects, products, horticultural, generate, disassemble, critique</p>

			Evaluate the design of products so as to suggest improvement to the user experience	
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