DT		Year 1	Year 2	Year3	Year 4	Year 5	Year 6
	Topics	**Hot and cold places Then and now What's in the UK?**	**Africa Historical Heroes Seaside**	**Beneath our feet (Europe) Pre – Historic Britain Wild Earth**	**Ancient Civilisations Liverpool Wales**	**Rainforest Anglo Saxons/Vikings Earth and Space**	**WW11 India**
End of Key Stage Expectations	***Design*** Design purposeful, functional, appealing products for themselves and other users based on design criteria. Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology. ***Make*** Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics ***Evaluate*** Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria ***Technical knowledge*** Build structures, exploring how they can be made stronger, stiffer and more stable Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.			***Design*** Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups. Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. ***Make*** Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. 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 ***Evaluate*** Investigate and analyse a range of existing products Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work Understand how key events and individuals in design and technology have helped shape the world ***Technical knowledge*** Apply their understanding of how to strengthen, stiffen and reinforce more complex structures understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] Apply their understanding of computing to program, monitor and control their products.			
Materials	Fold, tear and cut paper or card. Investigate strengthening sheet materials. Roll paper to create tubes.	Demonstrate a range of joining techniques such as gluing, taping or creating hinges. Cut materials safely using tools provided. Demonstrate a range of cutting and shaping techniques	Measure and mark out accurately. Cut materials accurately and safely by selecting appropriate tools. Cut slots.	Measure and mark out to the nearest mm. Use and explore complex popups. Cut slots and internal shapes. Create nets.	Cut materials with precision. Cut accurately and safely to a marked line. Join/combine materials with temporary, fixed or moving joints.	Cut materials with precision and refine the finish with appropriate tools (such as sanding wood). Show an understanding of the qualities of

	Demonstrate a range of joining techniques such as gluing or taping. Measure and mark out lines.	such as tearing, cutting, folding and curling. Use simple pop-ups.				materials to choose appropriate tools to cut and shape.
Construction, mechanics and electronics	Mark out materials to be cut using a template. Attach wheels to chassis using an axle. With support cut strip wood/dowel using a hacksaw. 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 and cotton reels. Use materials to practise drilling, screwing, nailing and gluing to strengthen products.	Create series circuits. Strengthen frames using diagonal struts. Begin to use mechanical systems in their products e.g. gears, pulleys and levers.	Create series and parallel circuits. Investigate how to make structures more stable e.g by widening the base. Understand and use mechanical structures in their products e.g. gears, pulleys, levers and gears.	Control a model using an ICT control model. Use a glue gun with close supervision. Join materials using appropriate methods. Use a hand drill to drill tight and loose fit holes.	Create circuits that employ a number of components (such as LEDs, resistors and transistors). Cut wood accurately to 1mm. Build frameworks using a range of materials e.g. wood, card and corrugated plastic. Use a cam to make an up and down mechanism.
Design throughout history	Explore objects and designs to identify likes and dislikes. Explore how products have been created.		Disassemble products to understand how they work. Improve on existing designs, giving reasons for choices. Identify some of the great designers in different areas of study to generate ideas from their designs.		Use knowledge of inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products to create their own innovative designs.	
Cooking and nutrition	*End of Key stage Expectations*	Use the basic principles of a healthy and varied diet to prepare dishes Understand where food comes from.	Understand and apply the principles of a healthy and varied diet Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.			
	Understand where food comes from. Group familiar food products e.g. fruit and vegetables. Cut ingredients safely. Prepare simple dishes-safely and hygienically-without using a heat source.	Group foods into the five groups in The Eatwell Plate. Cut, grate or peel ingredients safely. Prepare simple dishes-safely and hygienically-without using a heat source. Measure or weigh using cups or electronic scales.	Cut materials accurately and safely by selecting appropriate tools. Know that a healthy diet is made up from a variety of different food and drink, as depicted in The Eatwell Plate. Measure and weigh ingredients appropriately. Follow a recipe.	Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs). Measure ingredients using scales. Prepare ingredients hygienically and using the appropriate utensils by following a recipe.	Assemble or cook ingredients, controlling the temperature of the oven or hob if cooking. Measure accurately using different equipment. Create recipes, including ingredients, methods, cooking times and temperatures. Understand the importance of correct	Combine ingredients appropriately e.g. beating or rubbing. Measure ingredients to the nearest gram and millilitre and calculate ratios of ingredients to scale up or down from a recipe. Understand seasonality and know where and how a variety of ingredients are grown,

					storage and handling of ingredients.	reared, caught and processed. Create and refine recipes, including ingredients, methods, cooking times and temperatures.
Design, make evaluate and improve	Explain what they are making and which materials they are using. Design products that have a clear purpose and an intended user. Use pictures and words to convey what they want to make. Make products, using a range of tools to cut, shape, join and finish. Say what they like and don't like about their product and explain why. Talk about how closely their finished product meets their design criteria. Begin to use software to represent 2D designs.		Investigate existing products, including drawing them to analyse and understand how they are made. Plan a sequence of actions to make a product. Develop more than one design. Develop prototypes. Generate designs with annotated sketches and computer-aided design (CAD) where appropriate. Refine work and techniques as work progresses, continually evaluating the product design. Identify strengths and weaknesses of their design ideas. Talk about how closely their finished product meets their design criteria and meets the need of the user.		Undertake research to inform design process. This may include surveys and interviews. Use prototypes, cross-sectional diagrams, exploded diagrams and CAD software to represent designs. Consider the views of others when evaluating their own work. Ensure products have a high quality finish, using art skills where appropriate. Justify their decisions about materials and methods of construction. Make suggestions on how their design/product could be improved.	
Vocabulary	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Develop Model Purpose Templates Cutting Equipment Ingredients Materials Tool Strong Weak Curve Cutting Joining/join Lever Masking tape Paper fastener/ Split pin Top Decorate Template Ingredients Choosing Cutting Diet Healthy Peeling Pip Seed Skin Slicing Squeezing Tasting Fruit and vegetable names Names of equipment and utensils	Design criteria Develop Features Function/ Functional Generate Model Product Prototypes Purpose Assembling Components Construction Cutting Equipment Finishing Ingredients Joining Base Corner Cube Cuboid Cylinder Edge Fix Fold Framework Join Rectangle Side Square Straight Structure Surface Top Decorate	Aesthetic qualities Evaluate Reinforce Circuit Circuit diagram Gear Motor Switch Join Permanent Reinforce Shape Stability Stiffen Strengthen Temporary Joining Allergy Beat Carbohydrate Combine Crumble Dairy Fat Fold Gluten Ingredients Intolerance Knead Mix Nutrients Nutrition Pour Protein Roll out	Annotated sketches Appealing Computer- aided design Design criteria Purpose Research Materials Mechanism Aesthetic qualities Evaluate Circuit Circuit diagram Join Strengthen Appearance Aroma Cook Flavour Greasy Hot Taste Texture Edible Carbohydrate Ingredients Mix Nutrients Nutrition Pour Roll out Shape Sprinkle	Ingredients Arranging Choosing Core Cutting Diet Flesh Healthy Investigating Peeling Pip Popular Seed Skin Slicing Squeezing Tasting Prototype Purpose Relevant context Research Template user Components Control Decision Materials Mechanism Monitor Program Reinforce Aesthetic qualities Authentic	Ingredients Cutting Diet Healthy Investigating Characteristics Design brief Design criteria Design specification Finishing techniques Fit for purpose Purpose Relevant context Research Decision Materials Circuit Circuit diagram Electrical system Motor Switch Stability Strengthen Battery Bulb Series circuit Wire Flavour Taste Edible

	Pull push up down straight Simple flap Straight line Names of tools equipment and materials used Wheels Base Corner Fix Fold Join Side Straight Structure	Sensory vocabulary eg Soft Juicy Crunchy Sweet Sticky Smooth Sharp Crisp Sour Hard	Materials Textiles Tool Evaluate More stable Stiffer Strong Stronger Suitable Cutting Joining/join Masking tape Slot Straight line Axles Chassis body cab Fixed free moving Names of tools, equipment and materials used stable (stability) strengthen vehicle axle holder wheels	Join Pattern pieces Template Fabrics and components Names of existing products	Marking out Material Recycle Reduce Reuse Stiff Strong Fabric, names of fabric eg cotton, muslin Fastenings, names of fastenings eg zips, buttons Appearance Aroma Consistency Cook Flavour Greasy Hot Moist Preference Taste Texture Edible	Rubbing in Shape Source Sprinkle Stir Utensils Vitamins Whisk Name of products, names of equipment, utensils, techniques and ingredients	Accuracy Joining Material Fabric, names of fabrics eg cotton, muslin Fastenings, names of fastenings eg zips, buttons Right side Seam allowance Stiffening Stitch Strength Wadding Wrong side	Stir Utensils Name of products, names of equipment, utensils, techniques and ingredients	Fruit and vegetable names, names of equipment and utensils Sensory vocabulary eg Soft Juicy Crunchy Sweet Sticky Smooth Sharp Crisp Sour Hard Annotated sketches Appealing Characteristics Computer-aided design Criteria Design brief Design criteria Design specification Finishing techniques Fir for purpose Functional (functionality) Innovative (innovation)	Evaluate Reinforce Control Fixed pivot Input Lever Loose pivot Mechanism Oscillating Output Process Slider Fixed Lever Load Movable Pulleys Reinforce Screw Wedge Wheel and axle	Reinforce evaluate