DT	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design			Design and communicate		Research, design and communicate to audience			
	Explore range of man-made, natural and found materials – what does this do?	Explore range of man-made, natural and found materials – what can I use this for? Begin to draw ideas.	Talk about what their design is and its audience (self or others) Describe what product is for. Draw ideas.	As Y1 plus say how products are suitable for intended users. Create a template and mock-up for the design using knowledge of existing products. Use IT to explore, research & communicate design ideas	Generate and develop ideas through discussion. Gather info about needs / wants of particular users. Design for a purpose, indicating design features using annotated diagrams. Begin to use prototypes.	Design for a specific purpose or function in collaboration with others, and describe what the function is. Gather info about needs / wants of particular users and indicate design features that will appeal to those users. Develop own design criteria to inform ideas, taking account of available resources. Create some cross-sectional drawings and create prototypes.	Design and describe products as for Y4 with more detail. Carry out research (eg. Surveys, interviews) to identify users' wants, needs and preferences. Generate innovative ideas from research. Develop simple design specification to guide thinking. Use annotated sketches, cross-sectional drawings & exploded diagrams. Make design decisions	Design and describe in detail: Purpose of product; features that will appeal to intended users. Carry out research (eg. Surveys, questionnaires, interviews, web-based resources) to identify users' needs, wants and preferences. Develop detailed design specification to guide thinking and planning. Use annotated sketches, cross-sectional drawings & exploded diagrams. Make informed and realistic design decisions

							based on: Availability of resources; needs of the user; time and cost constraints.	based on: Availability of resources; needs of the user; time and cost constraints.
Make			Select tools and materials		Select tools and equipment			
	Explore a range of joining materials (eg glue, tape, string, clips) and simple equipment (eg scissors, hole punch)	Explore a range of joining materials (eg glue, tape, string, clips) and simple equipment (eg scissors, hole punch, split pins)	Choose from a selection of materials and tools. With support, measure, mark out, shape and cut materials. Follow safety procedures.	Children to choose own material sand explain choices. Measure, mark out, shape and cut materials. Assemble, join and combine materials and components. Follow safety procedures.	Select materials, components, tools & equipment suitable to the task. Order the main stages of making. Improve accuracy of measuring, marking, cutting, shaping & assembling. Apply some finishing techniques.	Confidently select materials, components, tools & equipment suitable to the task. Order in logical steps the main stages of making. Measure, mark, cut, shape & assemble with accuracy. Apply finishing techniques, explaining reasons for choosing these.	Confidently select (from an extensive range) materials, components, tools & equipment suitable to the task. Explain choices, giving evidence. Produce appropriate list of tools, equipment and materials needed. Formulate step-by step plans as a guide to making. Accurately assemble, join and combine materials. Accurately	As Y5 As Y5 plus: Finishing techniques involving several steps.

							apply finishing techniques than involve more than one step.	Explain next steps in learning, drawing on prior experience.
Evaluate			Evaluate others and own		Evaluate others, own and key events/individuals in History			
	Which tool is best for this job?	Which tool is best for this job? Can I make it better?	Sharing work and verbal feedback: likes and dislikes; suitability of materials for purpose; how to make it better.	Make simple judgements from design criteria. Written feedback about the properties of materials and how they are used, as well as how to improve own and other's work.	Identify strengths and areas for development in ideas & products using design criteria. Think about: How well products were designed & made; how successful were materials and methods; whether the product achieved its purpose & met the needs of its users. Recognise some designers, inventors and engineers who	Identify strengths and areas for development in ideas & products using design criteria. Think about the views of others, including users. Investigate and analyse existing products: Who designed them? Where were they designed & made? How well were they designed and made? How well do	Identify strengths and areas for development as Y4. Evaluate against own design criteria and original design specifications. Investigate and analyse products as for Y4 plus: Consider value for money and sustainability.	Confidently identify strengths and areas for development as Y4. Critically evaluate the quality of their design, manufacture and fitness for purpose of the product, evaluating against original design specification. Investigate and analyse products as for Y5 plus: How innovative are they? How sustainable are the materials? What impact do they have beyond their intended purpose?

					have been successful / influential.	they work? Did they achieve their purpose? Can they be re-used or recycled? Recognise several designers, inventors and engineers who have been successful / influential. What innovative qualities do their products have? What ha their impact been?	Recognise several designers, manufacturers and engineers who have been influential in the design and technology industries.	Recognise several designers, manufacturers and engineers who have been influential in the design and technology industries.
Technology			Structures and mechanisms		Improve using technology			
	Investigating technological toys and real equipment eg cameras & phones.	Using technological toys for a purpose, and explaining how they work.	Understand simple characteristics of materials and components. Know about the movement of simple mechanisms (levers, sliders, wheels, axles.	As Y1 plus: Understand how freestanding structures can be made stronger, stiffer, more stable. Recognise that 3D products can	Use learning from science and maths to aid designing and making. Understand functional and aesthetic qualities of materials. Understand how simple	Use learning from science and maths to aid designing and making. Understand functional and aesthetic qualities of materials, applying this to their work.	Use learning from a range of other subjects to aid designing and making. Understand functional and aesthetic qualities of materials, applying this	As Y5 plus: Explore more complex electrical circuits and components.

				be assembled from 2x2D shapes. Use correct technical vocabulary.	mechanical systems create movement. Understand how electrical components contribute to working products. Recognise that a 3D product can be assembled from a single 2D shape.	Know that mechanical and electrical systems have "input, process, output." Know that simple electrical circuits can be used to create functional products. Recognise that a 3D textile product can be assembled from a single fabric shape.	to their work. Know that mechanical systems (cams, pulleys, gears) create movement. Know that mechanical and electrical systems have "input, process, output." Recognise that materials can be combined and mixed to create more useful characteristics. Reinforce and strengthen a 3D framework.	Know that 3D textile products can be created from a combination of fabric shapes.
Food			Healthy diet and where food comes from		Healthy diet, cook food and study seasonality			
	Show some understanding of how a good diet contributes to good health. No cook recipes following	Know the importance of a healthy diet. Talk about healthy food. Follow recipes with simple pictorial and written	Recognise that food comes from plants or animals, and is farmed, grown elsewhere or caught. Begin to	Recognise that food comes from plants or animals, and is farmed, grown elsewhere, caught or imported.	Recognise where food comes from as Y2, understanding "locally" "regionally" "nationally" Focus on savoury	Recognise where food comes from as Y3 plus internationally. Hygienic preparation of savoury and some sweet dishes,	Know where food comes from as Y4 Begin to recognise how seasons and weather affect food availability. Begin to know	Know and explain the sources of foods. As Y5 Begin to know how food is processed into ingredients

	verbal and pictorial instructions	instructions.	understand "5 a day" Focus on fruit and veg. Prep – peeling, cutting, grating (smoothies, salads)	Name and sort food into 5 food groups. Focus on food prep with no heat source (as Y1 plus chopping & grating)	dishes with a heat source, Prep as Y1 and Y2 plus slicing, mixing, spreading, kneading, baking. Recognise variety and balance in a healthy diet. Understand that food is needed to provide energy.	including use of heat-source. Preparation techniques as Y3. Identifying flavours. Costing. Know the components of a healthy diet, and how energy from food combines with being active to maintain a healthy lifestyle.	how food is processed into ingredients for consumption. Taste and adapt a recipe during the cooking process, making changes to taste, aroma, texture, appearance. Hygienic preparation & cooking meat safely. Where meat comes from & ethical issues. Know that foods contain substances needed for health eg. Water, fibre, vitamins, nutrients.	for consumption or for use in cooking. Taste and adapt a recipe during the cooking process, making changes to taste, aroma, texture, appearance. Know how to safely and hygienically prepare and cook a variety of savoury and sweet recipes, working within a timescale. Safe storage of foods & understand risks of improper storage and cooking. Know the importance of a balanced diet; how healthy diets incorporate the correct amounts of food types and

								substances.