Progression of knowledge and skills in DT

		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Designing	Exploring	Explore existing products through observation and touch	Explore & evaluate existing products	Investigate a range of existing products to see how they work	Analyse a range of existing products to say what elements they will utilise in own design & why and what they will change & why	Research existing products and analyse to say what elements they will utilise in own design & why and what they will change & why	Research existing products and suggest innovations to further enhance them
	Developing ideas	Design purposeful & appealing products for themselves based on given design criteria	Design functional products for other users based on class-generated design criteria	Develop class design criteria to inform design of appealing & functional products	Develop class design criteria to inform design of innovative, functional and appealing products	Develop own design criteria to inform design of innovative, functional and appealing products aimed at particular individuals	Develop own design criteria to inform design of innovative, appealing & functional products aimed at particular individuals & groups of people based on market research
	Communicating ideas	Draw on their own experience to generate ideas Generate and develop ideas through talking and drawing with labels	Draw on their own experiences and the experiences of others to generate ideas Generate and develop ideas through templates, mock-ups and ICT	Generate ideas and communicate these through discussion and annotated sketches	Generate ideas and communicate these through discussion and cross-sectional & exploded diagrams	Generate ideas and communicate these through discussion and prototypes and pattern pieces	Generate ideas and communicate these through discussion and computer-aided design
Making	Working with tools	Select from & use a range of simple tools (eg scissors, glues & tapes) to cut, shape, join & finish Use food tools safely – e.g juicers, knives, chopping board, spoons	Use cutting, shaping, joining & finishing tools with greater care and precision e.g use finer paint brush Use food tools safely – e.g peelers, graters, whisks	Use wider range of joining tools (glue gun, velcro, stapler, sewing needles, nails, split pins) drawing on previous experience to inform choices of equipment	Use wider range of cutting and shaping tools (junior hacksaws, hole puncher, scoring knives, rotary cutter, hand drills), drawing on previous experience to inform choices of equipment	Use wider range of finishing tools (tjanting batik tool, printing inks, knitting, sewing) drawing on previous experience to inform choices of equipment	Select & use joining, cutting, shaping & finishing tools accurately
	Working with materials & components	Select from & use a range of materials & components including ingredients, textiles, materials.	Select from & use a wide range of materials & components, explaining their choice relating to their characteristics.	Select from and use a wide range of materials & components including construction materials according to their functional properties & aesthetic qualities	Select from and use a wide range of materials & components including ingredients according to their functional properties & aesthetic qualities	Select from and use a wide range of materials & components including textiles according to their functional properties & aesthetic qualities	Select from and use a wide range of materials & components including textiles, ingredients & construction according to their functional properties & aesthetic qualities
	Technical Knowledge	Build structures, exploring how they can be made more stable. Explore and use wheels & axles in their products	Build structures, exploring how they can be made stronger and stiffer. Explore and use sliders and levers in their products	Apply their understanding of how to strengthen, stiffen & reinforce more complex structures – diagonal struts, wide base, layering, rolling, folding	Understand and use electrical systems in their products (series circuits with buzzers, bulbs & motors)	Understand and use mechanical systems in their products (gears, pulleys, cams, levers & linkages)	Apply understanding of computing to program, monitor and control their products
	Food & Nutritional knowledge	Group familiar foods eg fruit, vegetables Prepare dishes using fruits and vegetables	Understand need for variety of food in a diet Know approximate portion sizes. Prepare dishes using fruits and vegetables using range of techniques Understand where food comes from	Apply principles of a healthy diet Use range of cooking techniques to prepare savoury dishes – weighing ingredients accurately	Understand seasonality of fruits & vegetables Know how a variety of ingredients are grown, reared, caught & processed to make them safe to eat	Understand basic food processes from farm – plate	Use food labels to inform choices Design own cost-effective, healthy menu
Evaluating	Evaluating products & processes	Evaluate likes and dislikes of finished product	Evaluate product against class-generated design criteria	Evaluate product against class-generated design criteria Consider appropriateness of processes undertaken	Evaluate product & processes against class-generated design criteria Consider the views of others to improve their work	Evaluate product & processes against own design criteria, considering the views of others to improve work	Understand how key events & individuals in DT have helped shape the world