Progression in: Design & Technology Subject leader: **Rachel Hemingway** Vocabulary Year 1 Year 2 Year 3 Year 5 Year 6 Year 4 Product **Process** Approximate Uncertain Contemporary Simultaneous Construction Accurate Former Prior Attribute Design Technology Model Technique Latter Subsequent Controversy First/second (etc) Later Structure Cause **Enduring** Authentic Then Earlier Mechanical Consequence Dominate Maquette Since Parallel When Phase Context Period Last Perpendicular Trend Complex Locational Concentric Next Paste Perspective Continuity Sparse Before Textile Quality Medium Exceptional Radial After Collage Fabric Intricate Pulley Intersecting Drawing Relief Weave **Audience** Cam Object Dye Lever **Painting Impact Printing** Style Version Program Gear Fashion Trace Purpose Develop Share At the same time as Opinion Pattern piece Locational Shape vocab (incl diagonal, Effect Monitor Organise Structure Levers Sew Construct Unique rotation, angle language) Sliders Contrast Mock-up Characteristic Improve Depth Prototype Convention Ingredients Layer Clarify Aesthetic Scale Material Series Savoury Critique Locational Circuit Compare Left/right (secure use from any Program Sweet Wheels perspective e.g. discussing partners' work across the table) Axles Locational Locational Make use of Mathematical Near Seasoning Far language in describing shape Up Locational and location (e.g. 3D shape Down Left/right (from own vocab incl angle, convex etc) Further Increase perspective) Higher Symmetrical Reflect Decrease Underneath Diagonal (i.e. sloped, not the Centre official maths meaning) Anticlockwise Range (not yet in technical Position maths sense) Direction Above Below Roughly Close to Older Newer

The	me: Design					* *
<u> </u>	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
P I a n	Make comments about what they are going to design or cook	Give a brief overview of their plans for design or cooking, using some DT vocabulary	Verbally explain their plans for design or cooking, linking to techniques and using DT vocabulary	Explain their plans for design or cooking in some detail, and in writing, making reference to techniques and materials/ ingredients	Plan designs in detail with preliminary studies, with reference to other designs and materials they have studied	Plan in detail with preliminary studies, linking to what they have studied and explaining their choices
G e n e r a t	Come up with ideas for a product, and express why they like it (i.e. personal appeal)	Make comments about the function and purpose of their product, and its personal appeal	Refer to research while talking about their product (i.e. not just its personal appeal)	Use research to justify the appeal of their product, and the innovativeness of their design	Make comments about how their product might be altered to appeal to other groups	Make sophisticated comments about the limitations of the function and purpose of their product, with reference to different audiences
D r a w	Trace around simple shapes to reproduce symbols Precision level: simple shapes freehand (e.g. square but possibly with curved-out corners); colouring-in is mostly within the lines	Devise a simple diagram Begin to annotate and highlight digital designs Precision level: rectangles are accurate (e.g. corners don't curve outwards); colouring-in is within the lines	Draw sketches at different points of the design process Draw and annotate digital designs Start to draw to scale Start to draw 3D projections, with shading for clarity Precision level: accurate 2D shapes (e.g. a freehand Union Jack where the internal lines intersect at the centre-point)	Draw a plan or sketch from a description Draw simple diagrams without much guidance Create a scale-bar Clear projections of common 3D shapes Precision level: careful with wrist position to avoid smudging (awareness of rubbings detritus under the page that might affect lines / measurements)	Make an accurate design sketch from someone else's measurements and notes Precision level: consistency within oblique/perspective projections of 3D shapes (i.e. parallel lines shown parallel or to vanishing points)	
D e v e I o	With support, discuss design criteria during the construction process	Start to volunteer comments about the design criteria while the construction process is ongoing	Politely discuss their peers' work Willingness to alter and/or restart designs	Start to suggest how their peers can improve their work Desire to alter and/or restart designs	Make reasonable suggestions for how their peers might improve their work Make amendments to current designs in order to add a new function	Constructively critique their peers' work and help with the improvements if appropriate

Ther	me: Make					
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Constructions with materials that are supplied for them	Select materials that are supplied for them	Work creatively with a range of materials, with some control	Request materials or ingredients that have not been supplied	Request other materials and give reasons	
T	Children's scissors Ruler / metre rule	soft tape-measure,	Protractor, metallic tape-measure, spirit level, sandpaper	Compass Scissors (to score); adult scissors (to cut) Sewing needle, Stanley knife & glue gun (all supervised)	Hammer/nails, chisel, mallet, vice (supervised), connector pliers (robotics), Computer based programming	Computer based programming
M e a s u r	To nearest 10cm (e.g. with stick painted in 5cm blocks)	To nearest cm and g Use litres and °C for temperature Scales in ones, twos, fives, tens (where the numbers are given)	To nearest mm, nearest 10ml, and 45° for angle Convert between units, eg m to cm	Start to understand inches & miles, stone & pounds, Fahrenheit Measure non-rectilinear distances on a computer design	Angle to nearest ° Calculate area; start to understand volume Use approximate equivalences between metric and imperial Start using linear and area measuring tools on a computer design	Calculate area and volume Fluency with converting units, including between metric and imperial Accurate linear/area measuring tools on a computer design
E s t i m a t e			Start to estimate length and distance Start to understand area	Make reasonable estimations of length and distance; start to estimate mass, capacity and angle	Estimate length, distance, mass, capacity, angle; start to estimate temperature and area	Make reasonable estimations of length, distance, angle, area.

Theme: Evaluate						
Year 1	Year 2	Year 3	<u>Year 4</u>	Year 5	<u>Year 6</u>	
Simple evaluation (e.g. spot similarities and differences between products) Follow simple advice from adults to improve their work	Relate products to their design criteria Listen courteously to views that differ from their own Follow advice from adults or peers	Link their own and others' designs and products to their function and purpose Start to verbalise others' opinions that differ from their own Make choices about following advice	Verbalise others' opinions politely and consider following their advice Start suggesting improvements to others' designs	Use constructive and sensitive language to suggest improvements to their peers' designs	Analyse their own and others' responses to their design, making improvements if appropriate Help improve peers' designs where that offer is welcomed	

S h o w	Can refer to a photo or drawing while talking about their work Use tallies and simple tables	Use ICT to create a simple info-sheet about their work (e.g. text with photo) Use pictograms, tally charts, block diagrams	Make and discuss annotated sketches and diagrams Use bar charts (e.g. not blocks)	Make and discuss cross- sectional and exploded diagrams Use time graphs; discrete and continuous data	Create a presentation with text/ images to support them in showcasing work Use timetables; mode and range averages	Use a range of supporting material to showcase their work, and take questions Use pie charts and line graphs; mean average
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The	Theme: Cooking						
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
S h a r p	Use knives with an 11-12cm non-serrated blade (supervised)	Use knives with an 11-12cm non-serrated blade (supervised) Use peeler on apple Use grater for cheese	Serrated knife with 'bridge' hold to cut onion (supervised) Cut e.g. peppers with precision (i.e. even size) Use peeler on vegetables Use a grater for e.g. apple, carrot	Use a 'bridge' hold to cut harder veg (e.g. butternut squash) Use peeler on vegetables Use a grater for e.g. carrot	Use 'claw' grip to cut Use a 'bridge' hold to cut vegetables precision. (i.e. even size)	Use large knives on hard vegetables like suede (supervised)	
O t h e r S k il l s			Break eggs, often not breaking yokes	Mash butternut squash (roughly);	Crushing garlic Greasing the tin	Sieving flour Kneading dough (pastry)	
H o t F o o		Watch adults putting food in ovens and explain how to do this safely	Use an oven to cook food (supervised)	Cook food on the hob (supervised)	Remove from a baking tray using a fish-slice (supervised)	Handle hot food with oven gloves (<i>supervised</i>)	