

William de Yaxley CE Academy Design Progression statements



	Year 3	Year 4	Year 5	Year 6
1. DESIGN				
Plan	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 in sketchbooks, with reference to other designs and materials they have studied	Plan in detail with preliminary studies in sketchbooks, linking to what they have studied and explaining their choices
Generate	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
Draw <i>(also see evaluate below)</i>	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	Draw a plan or sketch from a description Draw simple diagrams without much guidance Create a scale-bar Clear projections of common 3D shapes	Make an accurate design sketch from someone else's measurements and notes	
(Level of precision)	Accurate 2D shapes, e.g. a freehand Union Jack where the internal lines intersect at the centre-point	Careful with wrist position to avoid smudging; awareness of rubbings detritus under the page that might affect lines / measurements)	3D projections have accurate vanishing points or are accurately orthographic	
Develop <i>(also see evaluate below)</i>	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	Constructively critique their peers' work and help with the improvements if appropriate

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2. MAKE	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	
Tools	Protractor, metallic tape-measure, spirit level, sandpaper Screwdrivers (<i>supervised</i>)	Compass Scissors (<i>to score</i>) sewing needle, adult scissors, stanley knife & glue gun (<i>all supervised</i>)	Hammer/nails chisel mallet vice (<i>supervised</i>)	Saw, power tools (<i>supervised</i>)
Measure	To nearest mm, nearest 10ml, and 45° for angle Convert between units, eg m to cm (<i>from Maths NC</i>) Scales where numbers may be missing (<i>fr Maths NC</i>)	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 (<i>from Maths NC</i>) Use approximate equivalences between metric and imperial (<i>Maths NC</i>)	Calculate area and volume (<i>from Maths NC</i>) Fluency with converting units, including between metric and imperial (<i>from Maths NC</i>)
	Make measurements on a computer design		Start using linear and area measuring tools	Accurate linear/area measuring tools
Estimate	Start to estimate length and distance Start to understand area (<i>from Maths NC</i>)	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, mass, capacity, angle, area and temperature

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3. EVALUATE	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 Link products to their cultural contexts	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
Showcase work	Make and discuss annotated sketches and diagrams	Make and discuss cross-sectional and exploded diagrams	Create a presentation with text/images to support them in showcasing work	Use a range of supporting material to showcase their work, and take questions
<i>Graphs (fr Maths NC)</i>	Bar charts (e.g. not blocks)	Time graphs; discrete and continuous data	Timetables; mode and range averages	Pie charts and line graphs; mean av
4. COOKING				
Sharps	Serrated knife with 'bridge' hold to cut onion (supervised) Cut e.g. peppers with precision (even size) Use peeler on apples Use a grater for e.g apple, carrot	Use a 'bridge' hold to cut harder veg e.g. potato Use peeler on potato Use a grater for e.g. lemon zest	Use 'claw' grip to cut e.g. celery, carrot	Use large knives on hard vegetables, e.g. suede (supervised)
Other skills	Mash potato (roughly); crush garlic Break eggs, often not breaking yokes Knead bread dough	Reliably break eggs without breaking yoke Creaming fat/sugar	Mash potato to a smooth texture Separate egg whites from yokes Folding meringue mix	
Hot food	Cook food in an electric stockpot (supervised)	Use a microwave or toaster (supervised)	Remove e.g. hot biscuits from a baking tray using a fish-slice (supervised)	Handle hot food with oven gloves (supervised)

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5. VOCABULARY	Use some specialist vocab in discussions	Use specialist vocab, often appropriately	Use specialist vocab appropriately	Start to apply vocab in sophisticated ways, e.g. cross-curricular
suggested words	chronological approximate accurate technique structure mechanical parallel perpendicular perspective quality fabric weave dye version purpose opinion organise construct, mock-up, prototype clarify, raising agents	uncertain former latter cause consequence phase trend continuity medium intricate audience impact develop, pattern piece, structure unique characteristic convention aesthetic series circuit program	contemporary prior subsequent enduring dominate context complex sparse exceptional pulley cam lever gear	simultaneous attribute controversy authentic maquette
locational	<i>Left/right (secure use from any perspective e.g. discussing partners' work across the table)</i>	<i>Make use of Mathematical language in describing shape and location (e.g. 3D shape vocab inc, angle, convex etc)</i> increase, decrease	<i>Shape vocab incl diagonal, rotation, angle language)</i>	concentric radial, intersecting