



ASSESSMENT and
QUALIFICATIONS
ALLIANCE

Mark scheme

June 2003

GCSE

Design and Technology

Graphic Products

3553 (Short Course)

Higher

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Design and Technology Graphic Products**Short Course Higher Tier****Question 1 Data Representation**

- | | | | |
|-------|---------------------------------|-------------|----------------------|
| (i) | Correct number of vertical axis | 4 x 1 marks | (4 marks) |
| (ii) | Matching key to bars | | (1 mark) |
| (iii) | Quality of colour | | (1 mark) |
| | | | Total 6 marks |

Question 2 Designing

(i)	Letter style (font) – not single line letters		
	Two or more discrete ideas	1 mark	(2 marks)
	Evidence of some development of ideas	1 mark	
Evaluation:	Critical, relevant	2 marks	
	Superficial, self congratulatory, label, descriptive	1 mark	(2 marks)
(ii)	Logo		
	Two or more discrete ideas	1 mark	(3 marks)
	Evidence of some development of idea	1 mark	
	Animal theme	1 mark	
Evaluation:	Critical, relevant	2 marks	
	Superficial, self congratulatory, descriptive, label	1 mark	(2 marks)
(iii)	Ventilation		
	Two or more discrete ideas	1 mark	(2 marks)
	Evidence of some development of idea	1 mark	
Evaluation:	Critical, relevant	2 marks	
	Superficial, self congratulatory, label descriptive	1 mark	(2 marks)
(iv)	Sketching (Best Evidence)		
	Very effective: consistent e.g. sharp and faint, straight	5-4 marks	
	Satisfactory: some differences in line, communicates idea	3 marks	
	Adequate: poor pencil/line work – blunt, lacks quality	2 marks	
	Poor: an attempt, little evidence, scribble	1 mark	(5 marks)
(v)	Colour: (Accept pencil, notes, swatches etc)		
	Correct number	Black, one colour (+ white) in combination	1 mark
		Consistently applied in all sections	1 mark

Question 3 Presentation

(a)	(i) Use of spec: <i>pro rata, one mark per criteria</i>		
	Name		
	Letter style (font) Not single line		
	Logo – animal theme		
	Colour (max 3) not include black	4 x 1 marks	(4 marks)
	(ii) Quality of drawing:		
	Very good line quality, clear, neat etc	5 – 4 marks	
	Satisfactory, some sharp, neat etc	3 marks	
	Adequately drawn, some reasonable lines	2 – 1 marks	(5 marks)
	(iii) Layout:		
	Very effective, consistently good		
	e.g. spacing, proportion, line, good use of space	4 – 3 marks	
	Satisfactory, sense of composition		
	Adequate spacing, some imperfections	2 marks	
	An attempt but lacks clarity and/or poorly spaced, crowded	1 mark	
	unrecognisable	0 marks	(4 marks)
	(iv) Colouring:		
	Good quality, enhanced drawing the achieves visual impact e.g. good block colouring	3 marks	
	satisfactory, controlled use of media	2 marks	
	an attempt at colouring, untidy	1 mark	
	line drawings only	0 marks	(3 marks)
(b)	Both Correct features (ht, length) identified	1 mark	
	Leaders gap, correct arrowheads	1 mark	
	Dimension lines solid, parallel, touch leaders	1 mark	
	Size correct ,above line, centre position	1 mark	(4 marks)

Total 20 marks**Question 4 Evaluation and modifications**

(a)	Sketches:	Clear, neat communicates ideas well (2 or more ideas)	1 mark	
		Outline	1 mark	(2 marks)
		Labels (comfort, strength) etc	1 mark	(1 mark)
(b)	Design related to sketch		1 mark	(1 mark)
	Position of handle at least one square from the top and six square lengths (well drawn)		2 marks	(2 marks)
	Some imperfections		1 mark	

Total 6 marks

Question 5 3rd Angle Orthographic drawing

All lines to be in correct position and the correct length

Plan	Flap	Inclined lines Two vertical lines	2 x 1 marks 1 mark	(3 marks)
	Centre	3 x Horizontal lines	3 x 1 marks	(3 marks)
	Lock flap	3 x Horizontal lines Three short vertical lines	3 x 1 marks 1 mark	(4 marks)
				Total 10 marks

Question 6 Materials

(a)	Sketch: correct structure e.g. 3D, in proportion, all layers		
	In contact with facings	2 marks	
	An understanding of material structure e.g. 2D	1 mark	
	Some inaccuracies		
	Confused, incomprehensible	0 marks	(2 marks)
	Notes labels, and/or correct description	1 mark	
	Incorrect	0 marks	(1 mark)
(b)	Advantages	reasoned statement relating product to; Weight, cost, availability, safety, ease of processing, bio-degradable etc	2 marks
		some understanding but confused, one word	1 mark (2 marks)
	Disadvantage	reasoned statement relating product to wet strength, damages easily, 'edible' etc	2 marks
		some understanding but confused, one word	1 mark (2 marks)
(c)	Corner join Sketch <i>showing staples, stitching, locking tabs etc</i>		
		Good, informative e.g. showing overlap, Thickness, good line, exploded, aligned etc	5-4 marks
		Adequate, some minor inaccuracies, untidy	3 marks
		An attempt, recognisable	2-1 marks
		Confused, scribble (tape or adhesive)	0 marks (5 marks)
	Annotation	Reasoned notes	2 marks
		Labels	1 mark (2 marks)
(d)	Smart Materials (<i>e.g. that which reacts in predictable way given external stimulus</i>)		
	(i)	full, clear understanding	3 marks
		some understanding	2 marks
		an attempt	1 mark
		confused, wrong,	0 marks (3 marks)
	(iii) (<i>e.g. colour change due to temperature change</i>)		
		full, clear understanding	2 marks
		some understanding	1 mark
		confused, wrong	0 marks (2 marks)

Total 19 marks

Question 7 Environmental, Cultural, Social Issues

(a)	<i>e.g. some have moral or religious significance, offensive etc</i>		
	reasoned response, clear concise	2 marks	
	partial response, confused	1 mark	
	incorrect	0 marks	(2 marks)
(b)	(i)	<i>e.g. products are seen, room for graphics, hanging slot, product tamper proof etc</i>	
		reasoned response, clear concise	2 marks
		partial response, confused	1 mark
		incorrect	0 marks
	(ii)	<i>e.g. products are seen, buy as seen, compares to consumers wants etc</i>	
		reasoned response, clear concise	2 marks
		partial response, confused	1 mark
		incorrect	0 marks
	(iii)	<i>e.g. excessive packaging, use of non-renewable materials, bulky for transport etc</i>	
		reasoned response, clear concise	2 marks
		partial response, confused	1 mark
		incorrect	0 marks
	(iv)	Oil	1 mark
(c)	(i)	<i>e.g. large hole in ground for domestic/industrial waste, bury and forget, disused quarries, sand pits etc</i>	
		clear concise correct response	2 marks
		partial response, confused	1 mark
		incorrect	0 marks
	(ii)	<i>e.g. materials decompose relatively quickly, rots down etc</i>	
		clear concise correct response	2 marks
		partial response, confused	1 mark
		incorrect	0 marks
(d)		<i>e.g. use less materials – smaller, thinner, biodegradable, re-use – recycled materials, refillable containers, used components, reduce packaging, avoid hazardous materials etc</i>	
	<i>pro rata</i>	clear concise correct response	3 x 2 marks
		some understanding	1 mark
		confused, incorrect	0 marks
			(3 x 2 marks)

Total 19 marks**Total Paper 100 Marks**