

MARK SCHEME for the October/November 2012 series

0445 DESIGN AND TECHNOLOGY

0445/12

Paper 1 (Design), maximum raw mark 50

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge will not enter into discussions about these mark schemes.

Cambridge is publishing the mark schemes for the October/November 2012 series for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level components and some Ordinary Level components.

Page 2	Mark Scheme	Syllabus	Paper
	IGCSE – October/November 2012	0445	12

1 (a)	Accept any four additional suitable points – easy to load/unload, well balanced, hygienic, easy to clean, comfortable/ergonomic handle, etc.	(1x4)	[4]
(b)	Accept drawings of any two types of carrying handle – leather strap, rope, case type, lip on material, cut-out in material, knobs, etc.	(2x2)	[4]
(c)	Any suitable ideas. At least three different ideas for maximum marks. Pro rata if fewer.		
	Communication		
	Simple drawings displaying a low standard or limited range of techniques	(0-2)	
	Clear drawings displaying a good standard and a range of techniques – shading /colour/annotation etc	(3-4)	
	High quality drawings using a wide range of techniques with clear annotation and detail	(5-6)	
	Suitability		
	Simplistic designs showing outlines only	(0-2)	
	Rather more detail, sensible solutions that could work	(3-4)	
	Accurate solutions, good fitness for purpose, detailed construction	(5-6)	[12]
(d)	Evaluation of each of the ideas. At least 3 evaluations up to 2 marks each	(0-6)	
	Selection and justification. (1+1)	(2)	[8]
(e)	Quality of drawing		
	Poor line quality, proportions, little detail	(1)	
	Good line work, use of colour, proportions, some detail	(2-3)	
	High standard throughout with a range of techniques that show clearly all detail	(4)	
	Dimensions 2 or 3 overall dimensions only (1)		
	Additional detail dimensions (2)	(2)	
	Construction details		
	A simplistic approach showing little or no detail of construction to be used	(0-2)	
	Most constructional detail may be obvious from overall views or with some annotation	(3-4)	
	All constructional detail will be clear with good annotation and additional detail drawings as necessary	(5-6)	[12]
(f)	Suitable specific materials stated. (1+1)	(2)	
	Appropriate reasons for choice. (1+1)	(2)	[4]
(g)	Suitable method described.	(1)	
	Good detailed description of: processes	(3)	
	tools.	(2)	[6]
			[Total: 50]

Page 3	Mark Scheme	Syllabus	Paper
	IGCSE – October/November 2012	0445	12

2 (a)	Accept any four additional suitable points – colourful, attract attention, hygienic, bags cannot blow/fall out, capacity for daily emptying, can be folded for post, easy to load/unload, etc.	(1x4)	[4]
(b)	Accept drawings of any two attraction methods, large/simple lettering, movement, lighting, 3-D, sound, etc.	(2x2)	[4]
(c)	Any suitable ideas. At least three different ideas for maximum marks. Pro rata if fewer.		
	Communication		
	Simple drawings displaying a low standard or limited range of techniques	(0-2)	
	Clear drawings displaying a good standard and a range of techniques – shading /colour/annotation etc	(3-4)	
	High quality drawings using a wide range of techniques with clear annotation and detail	(5-6)	
	Suitability		
	Simplistic designs showing outlines only	(0-2)	
	Rather more detail, sensible solutions that could work	(3-4)	
	Accurate solutions, good fitness for purpose, detailed construction	(5-6)	[12]
(d)	Evaluation of each of the ideas. At least 3 evaluations up to 2 marks each	(0-6)	
	Selection and justification. (1+1)	(2)	[8]
(e)	Quality of drawing		
	Poor line quality, proportions, little detail	(1)	
	Good line work, use of colour, proportions, some detail	(2-3)	
	High standard throughout with a range of techniques that show clearly all detail	(4)	
	Dimensions		
	2 or 3 overall dimensions only (1)		
	Additional detail dimensions (2)	(2)	
	Construction details		
	A simplistic approach showing little or no detail of construction to be used	(0-2)	
	Most constructional detail may be obvious from overall views or with some annotation	(3-4)	
	All constructional detail will be clear with good annotation and additional detail drawings as necessary	(5-6)	[12]
(f)	Suitable specific materials stated. (1+1)	(2)	
	Appropriate reasons for choice. (1+1)	(2)	[4]
(g)	Suitable method described.	(1)	
	Good detailed description of: processes	(3)	
	tools.	(2)	[6]
			[Total: 50]

Page 4	Mark Scheme	Syllabus	Paper
	IGCSE – October/November 2012	0445	12

3 (a)	Accept any four additional suitable points – simple to play with, bright colours, easy to clean, safe shape, hygienic, rugged design, more than one child, etc.	(1x4)	[4]
(b)	Accept any two types of movement, paddle wheel, slide, chute, bucket belt, balance, screw, etc.	(2x2)	[4]
(c)	Any suitable ideas. At least three different ideas for maximum marks. Pro rata if fewer.		
	Communication		
	Simple drawings displaying a low standard or limited range of techniques	(0-2)	
	Clear drawings displaying a good standard and a range of techniques – shading /colour/annotation etc	(3-4)	
	High quality drawings using a wide range of techniques with clear annotation and detail	(5-6)	
	Suitability		
	Simplistic designs showing outlines only	(0-2)	
	Rather more detail, sensible solutions that could work	(3-4)	
	Accurate solutions, good fitness for purpose, detailed construction	(5-6)	[12]
(d)	Evaluation of each of the ideas. At least 3 evaluations up to 2 marks each	(0-6)	
	Selection and justification. (1+1)	(2)	[8]
(e)	Quality of drawing		
	Poor line quality, proportions, little detail	(1)	
	Good line work, use of colour, proportions, some detail	(2-3)	
	High standard throughout with a range of techniques that show clearly all detail	(4)	
	Dimensions		
	2 or 3 overall dimensions only (1)		
	Additional detail dimensions (2)	(2)	
	Construction details		
	A simplistic approach showing little or no detail of construction to be used	(0-2)	
	Most constructional detail may be obvious from overall views or with some annotation	(3-4)	
	All constructional detail will be clear with good annotation and additional detail drawings as necessary	(5-6)	[12]
(f)	Suitable specific materials stated. (1+1)	(2)	
	Appropriate reasons for choice. (1+1)	(2)	[4]
(g)	Suitable method described.	(1)	
	Good detailed description of: processes	(3)	
	tools.	(2)	[6]
			[Total: 50]