UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS International General Certificate of Secondary Education

www.papacambridge.com MARK SCHEME for the May/June 2012 question paper

for the guidance of teachers

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 must be read in conjunction with the question papers and the report on the examination.

Cambridge will not enter into discussions or correspondence in connection with these mark schemes.

Cambridge is publishing the mark schemes for the May/June 2012 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.

	Mark Scheme: Teachers' version IGCSE – May/June 2012	Syllabus 0445	
	IGCSE – May/June 2012	0445	SC.
	cept any four additional suitable points – easy to cle	ean, resists	mb.
	ter, appropriate height/position, items easy to acce tches bathroom, etc.	(1x4)	19
		()	~
(b) Ac	cept drawings of any two suitable places – on shelf,	on wall, on	aa Cambiida
wir	dow ledge, in drawer, etc.	(2x2)	[4]
(c) An	y suitable ideas. At least three different ideas for	r maximum	
ma	rks. Pro rata if fewer.		
	mmunication nple drawings displaying a low standard or limited	d range of	
tec	hniques	(0-2)	
	ar drawings displaying a good standard and a hniques – shading /colour/annotation etc	i range of (3-4)	
	h quality drawings using a wide range of techniques		
	notation and detail	(5-6)	
	itability pplistic designs showing outlines only	(0-2)	
	ther more detail, sensible solutions that could work	(3-4)	
Ac	curate solutions, good fitness for purpose, detailed co	onstruction (5-6)	[12]
(d) Eva	aluation of each of the ideas. At least 3 evaluation	ns up to 2	
• •	rks each	(0-6)	
Se	ection and justification. (1+1)	(2)	[8]
(e) Qu	ality of drawing		
Po	or line quality, proportions, little detail	(1)	
	od line work, use of colour, proportions, some detail	(2-3)	
	h standard throughout with a range of techniques arly all detail	that show (4)	
	nensions 2 or 3 overall dimensions only - 1	(' /	
0.0	Additional detail dimensions - 2	(2)	
	nstruction details simplistic approach showing little or no detail of cons	struction to	
be	used	(0-2)	
	st constructional detail may be obvious from overa h some annotation	all views or (3-4)	
	constructional detail will be clear with good anno		
	ditional detail drawings as necessary	(5-6)	[12]
(f) Su	table specific materials stated.	(2)	
	propriate reasons for choice.	(2)	[4]
(g) Su	table method stated.	(1)	
(0)	od detailed description of: processes	(3)	
	tools.	(2)	[6]
	10013.	(=)	[0]

	3 N	lark Scheme: Teachers' version	Syllabus	0.
		IGCSE – May/June 2012	0445	1230
(a)	simple instruc	our additional suitable points – appe tions, reflect issue, can be folded, e dren's play, etc.	aling to children, asily assembled, (1>	4 AMAN, Dapa Campridge (4)
(b)	• •	four environmental issues – wate gy, loss of forests, pollution, use o nt, etc.	er conservation, f finite reserves, (2x	
(c)	marks. Pro ra Communicat Simple drawi techniques Clear drawin techniques – s High quality d annotation an Suitability Simplistic des Rather more d	ion ngs displaying a low standard or gs displaying a good standard a shading /colour/annotation etc lrawings using a wide range of techr	limited range of (0- ind a range of (3- niques with clear (5- (0- ork (3-	4) 6) 2) 4)
(d)	marks each	each of the ideas. At least 3 eva justification. (1+1)	luations up to 2 (0- (2)	,
(e)	Good line wor High standard clearly all deta Dimensions Construction A simplistic a be used Most construct with some and All construction	ity, proportions, little detail k, use of colour, proportions, some d d throughout with a range of techn ail 2 or 3 overall dimensions only - 1 Additional detail dimensions - 2 a details pproach showing little or no detail o ctional detail may be obvious from	iques that show (4) (2) of construction to (0- overall views or (3-	3) 2) 4)
(f)	•	ific materials stated. easons for choice.	(2) (2)	
(g)	Suitable meth Good detailed	l description of: processes	(1) (3) (2)	1
		tools.	(2)	[0]

Page 4	Mark Scheme: Teachers' version	Syllabus	N.		
	IGCSE – May/June 2012	0445	2		
r	Accept any four additional suitable points – will not revolving, easy to clean, hygienic, adjustable, fo accessible, handle keeps cool, etc.		ambridge		
• •	Accept any two mechanisms – clockwork, electri offset/wheel turning handle, vertical/horizontal rotating sp	c motors, bit, etc. (2x2)	[4]		
r	Any suitable ideas. At least three different ideas for maximum marks. Pro rata if fewer. Communication				
s t	Simple drawings displaying a low standard or limited echniques Clear drawings displaying a good standard and a	(0-2)			
t H a	echniques – shading /colour/annotation etc High quality drawings using a wide range of techniques annotation and detail	(3-4)			
S F	Suitability Simplistic designs showing outlines only Rather more detail, sensible solutions that could work	(0-2) (3-4)			
(d) E	Accurate solutions, good fitness for purpose, detailed cor Evaluation of each of the ideas. At least 3 evaluation marks each		[12]		
-	Selection and justification. (1+1)	(2)	[8]		
F	Quality of drawing Poor line quality, proportions, little detail	(1)			
ŀ	Good line work, use of colour, proportions, some detail High standard throughout with a range of techniques clearly all detail	(2-3) that show (4)			
	Dimensions 2 or 3 overall dimensions only - 1 Additional detail dimensions - 2 Construction details	(2)			
	A simplistic approach showing little or no detail of cons be used Most constructional detail may be obvious from overal	(0-2) Il views or			
A	with some annotation All constructional detail will be clear with good anno additional detail drawings as necessary	(3-4) tation and (5-6)	[12]		
	Suitable specific materials stated. Appropriate reasons for choice.	(2) (2)	[4]		
(g) S	Suitable method stated.	(1)			
(0)	Good detailed description of: processes tools.	(1) (3) (2)	[6]		
			otal: 50]		