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UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the May/June 2012 question paper for the guidance of teachers

0445 DESIGN AND TECHNOLOGY

0445/11

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.

Page 2		2	Mark Scheme: Teachers' version	Syllabus 🔪 🔧	N.
			IGCSE – May/June 2012	0445	20-
1	(a)	wate	ept any four additional suitable points – easy to cle r, appropriate height/position, items easy to acce thes bathroom, etc.	ean, resists ess/remove, (1x4)	Da Cambridge
	(b)		ept drawings of any two suitable places – on shelf, ow ledge, in drawer, etc.		[4]
	(c)	mark Com Simp techi Clea techi High anno Suita Simp Rath	suitable ideas. At least three different ideas for its. Pro rata if fewer. Immunication Die drawings displaying a low standard or limiter iniques or drawings displaying a good standard and a iniques – shading /colour/annotation etc or quality drawings using a wide range of techniques of tation and detail ability Distic designs showing outlines only er more detail, sensible solutions that could work trate solutions, good fitness for purpose, detailed contains.	d range of (0-2) range of (3-4) s with clear (5-6) (0-2) (3-4)	[12]
	(d)	mark	uation of each of the ideas. At least 3 evaluations each ction and justification. (1+1)	ns up to 2 (0-6) (2)	[8]
	(e)	Poor Good High clear Dime Con: A sir be us Most with All of	lity of drawing Iline quality, proportions, little detail Iline work, use of colour, proportions, some detail Istandard throughout with a range of techniques Ity all detail Interest 2 or 3 overall dimensions only - 1 Interest Additional detail dimensions - 2 Interest 2 or 3 overall dimensions - 2 Interest 3 overall dimensions - 2 Interest 4 overall dimensions - 2 Interest 5 overall dimensions - 2 Interest 6 overall dimensions - 2 Interest 7 overall dimensions - 2 Interest 8 overall dimensions - 2 Interest 9 overall 9 overall dimensions - 2 Interest 9 overall 9 overall 9 overall 9 Interest 9 overall 9	(4) (2) struction to (0-2) all views or (3-4)	[12]
	(f)		able specific materials stated. copriate reasons for choice.	(2) (2)	[4]
	(g)		able method stated. d detailed description of: processes tools.	(1) (3) (2)	[6]

[Total: 50]

Syllabus

. ugu	IGCSE – May/June 2012	0445	
(a)	Accept any four additional suitable points – appealir simple instructions, reflect issue, can be folded, easil sturdy for children's play, etc.	ng to children, ly assembled, (1x4)	Cambridge.
(b)	Accept any four environmental issues – water wasting energy, loss of forests, pollution, use of fit carbon footprint, etc.	conservation,	[4]
(c)	Any suitable ideas. At least three different ideas marks. Pro rata if fewer. Communication Simple drawings displaying a low standard or limit techniques Clear drawings displaying a good standard and techniques – shading /colour/annotation etc High quality drawings using a wide range of techniquannotation and detail Suitability Simplistic designs showing outlines only Rather more detail, sensible solutions that could work Accurate solutions, good fitness for purpose, detailed	ited range of (0-2) a range of (3-4) ues with clear (5-6) (0-2) (3-4)	[12]
(d)	Evaluation of each of the ideas. At least 3 evaluation marks each Selection and justification. (1+1)	tions up to 2 (0-6) (2)	[8]
(e)	Quality of drawing Poor line quality, proportions, little detail Good line work, use of colour, proportions, some deta High standard throughout with a range of technique clearly all detail Dimensions 2 or 3 overall dimensions only - 1 Additional detail dimensions - 2 Construction details A simplistic approach showing little or no detail of coloused Most constructional detail may be obvious from ove with some annotation All constructional detail will be clear with good an additional detail drawings as necessary	es that show (4) (2) onstruction to (0-2) erall views or (3-4)	[12]
(f)	Suitable specific materials stated. Appropriate reasons for choice.	(2) (2)	[4]
(g)	Suitable method stated. Good detailed description of: processes tools.	(1) (3) (2)	[6]

Mark Scheme: Teachers' version

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[Total: 50]

	Page 4	Mark Scheme: Teachers' version	Syllabus	
	i ugo -	IGCSE – May/June 2012	0445	
3	(a)	Accept any four additional suitable points – will revolving, easy to clean, hygienic, adjustable, accessible, handle keeps cool, etc.	not tip over,	0.0
	(b)	Accept any two mechanisms – clockwork, ele offset/wheel turning handle, vertical/horizontal rotating	ectric motors,	7
	(c)	Any suitable ideas. At least three different ideas marks. Pro rata if fewer. Communication Simple drawings displaying a low standard or limit techniques Clear drawings displaying a good standard and techniques – shading /colour/annotation etc High quality drawings using a wide range of techniquen annotation and detail Suitability Simplistic designs showing outlines only Rather more detail, sensible solutions that could work Accurate solutions, good fitness for purpose, detailed	nited range of (0-2) d a range of (3-4) ques with clear (5-6) (0-2) k (3-4)	
	(d)	Evaluation of each of the ideas. At least 3 evaluation marks each Selection and justification. (1+1)	ations up to 2 (0-6) (2) [8]	
	(e)	Quality of drawing Poor line quality, proportions, little detail Good line work, use of colour, proportions, some deta High standard throughout with a range of technique clearly all detail Dimensions 2 or 3 overall dimensions only - 1 Additional detail dimensions - 2 Construction details A simplistic approach showing little or no detail of of be used Most constructional detail may be obvious from ow with some annotation All constructional detail will be clear with good a additional detail drawings as necessary	(4) (2) construction to (0-2) verall views or (3-4)	
	(f)	Suitable specific materials stated. Appropriate reasons for choice.	(2) (2) [4]	
	(g)	Suitable method stated. Good detailed description of: processes tools.	(1) (3) (2) [6]	

[Total: 50]