CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

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.

www.xtrapapers.com

[Total: 50]

	Page 2		Mark Scheme	0	,	
	ı ag	, C L	IGCSE – October/November 2012	Syllabus 0445	900	
1	(a)		any four additional suitable points – easy to ed, hygienic, easy to clean, comfortable/ergonomic l	load/unload, well nandle, etc.	datha Cal	Abrido
	(b)		drawings of any two types of carrying handle – loe, lip on material, cut-out in material, knobs, etc.	eather strap, rope,	(2x2)	[4]
	(c)	Any sui rata if fe	table ideas. At least three different ideas for ma ewer.	ximum marks. Pro		
		Simple Clear d shading	unication drawings displaying a low standard or limited range lrawings displaying a good standard and a rang y /colour/annotation etc uality drawings using a wide range of techniques w	e of techniques -	(0-2) (3-4)	
		and det Suitabi Simplist	ail lity lity tic designs showing outlines only		(5-6)	
		Accurat	more detail, sensible solutions that could work e solutions, good fitness for purpose, detailed cons		(3-4) (5-6)	[12]
	(d)	Evaluat	ion of each of the ideas. At least 3 evaluations up t	o 2 marks each	(0-6)	
		Selection	on and justification. (1+1)		(2)	[8]
	(e)	Poor lin Good lir	of drawing e quality, proportions, little detail ne work, use of colour, proportions, some detail andard throughout with a range of techniques th	at show clearly all	(1) (2-3) (4)	
		Dimens	sions 2 or 3 overall dimensions only (1) Additional detail dimensions (2)		(2)	
		A simpl	uction details istic approach showing little or no detail of constructional detail may be obvious from overall v		(0-2)	
		annotat All cons	•		(3-4) (5-6)	[12]
	(f)	_	e specific materials stated. (1+1)		(2)	[· -]
		Appropi	riate reasons for choice. (1+1)		(2)	[4]
	(g)		e method described. etailed description of: processes tools.		(1) (3) (2)	[6]

www.xtrapapers.com

[Total: 50]

	Page 3		Mark Scheme	0		
-	ıay	,	IGCSE – October/November 2012	Syllabus 0445	800	
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.		OdbaCan (1x4)	Bridge	
	(b)	•	drawings of any two attraction methods, largent, lighting, 3-D, sound, etc.	ge/simple lettering,	(2x2)	[4]
	(c)	Any suitable ideas. At least three different ideas for maximum marks. Pro rata if fewer.				
		Simple	unication drawings displaying a low standard or limited range lrawings displaying a good standard and a rang	-	(0-2)	
		shading	/colour/annotation etc ality drawings using a wide range of techniques wi			
		Suitabi Simplist Rather		truction	(5-6) (0-2) (3-4) (5-6)	[12]
	(d)	Evaluat	ion of each of the ideas. At least 3 evaluations up t	o 2 marks each	(0-6)	
		Selection	on and justification. (1+1)		(2)	[8]
	(e)	Poor lin Good lir	of drawing e quality, proportions, little detail ne work, use of colour, proportions, some detail andard throughout with a range of techniques the	at show clearly all	(1) (2-3) (4)	
			sions verall dimensions only (1) nal detail dimensions (2)		(2)	
		A simpli	uction details istic approach showing little or no detail of construct onstructional detail may be obvious from overall v		(0-2)	
		annotat All cons			(3-4) (5-6)	[12]
	(f)		e specific materials stated. (1+1)		(2)	- -
		Appropi	riate reasons for choice. (1+1)		(2)	[4]
	(g)		e method described. etailed description of: processes tools.		(1) (3) (2)	[6]

www.xtrapapers.com

Syllabus

	,	IGCSE – October/November 2012	0445	800	
				Cal	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.				
(b)	Accept any two types of movement, paddle wheel, slide, chute, bucket belt, balance, screw, etc.				[4]
(c)					
	Communication Simple drawings displaying a low standard or limited range of techniques Clear drawings displaying a good standard and a range of techniques –				
	shading /colour/annotation etc			(3-4)	
	and detail				
	Simplist Rather	tic designs showing outlines only more detail, sensible solutions that could work	ruction	(0-2) (3-4) (5-6)	[12]
(d)	Evaluat	ion of each of the ideas. At least 3 evaluations up to	o 2 marks each	(0-6)	
	Selection	on and justification. (1+1)		(2)	[8]
(e)	Poor lin Good lii	e quality, proportions, little detail ne work, use of colour, proportions, some detail	at show clearly all	(1) (2-3) (4)	
	2 or 3 o	verall dimensions only (1)		(2)	
	A simpl	istic approach showing little or no detail of construct		(0-2)	
	annotation	(3-4)			
	All constructional detail will be clear with good annotation and additional detail drawings as necessary			(5-6)	[12]
(f)	Suitable	e specific materials stated. (1+1)		(2)	
	(b) (c) (d)	colours child, et child, et colours child, et co	colours, easy to clean, safe shape, hygienic, rugged desichild, etc. (b) Accept any two types of movement, paddle wheel, slide, balance, screw, etc. (c) Any suitable ideas. At least three different ideas for ma rata if fewer. Communication Simple drawings displaying a low standard or limited range Clear drawings displaying a good standard and a rang shading /colour/annotation etc High quality drawings using a wide range of techniques wi and detail Suitability Simplistic designs showing outlines only Rather more detail, sensible solutions that could work Accurate solutions, good fitness for purpose, detailed const (d) Evaluation of each of the ideas. At least 3 evaluations up to Selection and justification. (1+1) (e) Quality of drawing Poor line quality, proportions, little detail Good line work, use of colour, proportions, some detail High standard throughout with a range of techniques the detail Dimensions 2 or 3 overall dimensions only (1) Additional detail dimensions (2) Construction details A simplistic approach showing little or no detail of construct Most constructional detail may be obvious from overall v annotation All constructional detail will be clear with good annotation adrawings as necessary	 (b) Accept any two types of movement, paddle wheel, slide, chute, bucket belt, balance, screw, etc. (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 Clear drawings displaying a good standard and a range of techniques – shading /colour/annotation etc High quality drawings using a wide range of techniques with clear annotation and detail Suitability Simplistic designs showing outlines only Rather more detail, sensible solutions that could work Accurate solutions, good fitness for purpose, detailed construction (d) Evaluation of each of the ideas. At least 3 evaluations up to 2 marks each Selection and justification. (1+1) (e) Quality of drawing Poor line quality, proportions, little detail Good line work, use of colour, proportions, some detail High standard throughout with a range of techniques that show 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 construction to be used Most constructional detail may be obvious from overall views or with some annotation All constructional detail will be clear with good annotation and additional detail drawings as necessary 	(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. (b) Accept any two types of movement, paddle wheel, slide, chute, bucket belt, balance, screw, etc. (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 — shading /colour/annotation etc High quality drawings using a wide range of techniques with clear annotation and detail Suitability Simplistic designs showing outlines only Rather more detail, sensible solutions that could work Accurate solutions, good fitness for purpose, detailed construction (5-6) (d) Evaluation of each of the ideas. At least 3 evaluations up to 2 marks each (0-6) Selection and justification. (1+1) (2) (e) Quality of drawing Poor line quality, proportions, little detail Good line work, use of colour, proportions, some detail High standard throughout with a range of techniques that show clearly all detail Dimensions 2 or 3 overall dimensions only (1) Additional detail dimensions (2) (2) Construction details A simplisite approach showing little or no detail of construction to be used Most constructional detail may be obvious from overall views or with some annotation All constructional detail may be obvious from overall views or with some annotation All constructional detail will be clear with good annotation and additional detail drawings as necessary (5-6)

Appropriate reasons for choice. (1+1)

Good detailed description of: processes

tools.

Suitable method described.

(g)

Mark Scheme

Page 4

[Total: 50]

[4]

[6]

(2)

(1)

(3) (2)