MARK SCHEME for the May/June 2013 series

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 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 May/June 2013 series for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level components and some Ordinary Level components.



	Page 2		Mark Scheme	Syllabus	Paper
			IGCSE – May/June 2013	0445	11
1	(a)	resists	at any four additional suitable points – easy to clean, s water, appropriate height/position, boots easy to s/remove, stable in use, etc.	(1 × 4)	[4]
	(b)	rods, i	t drawings of any two suitable methods – inverted on n vertical/horizontal boxes, on shelves, on slats, in in slots, etc.	(2 × 2)	[4]
	(c)	maxim Comm Simple of tech Clear techni High c clear a	uitable ideas. At least three different ideas for num marks. Pro rata if fewer. nunication e drawings displaying a low standard or limited range nniques. drawings displaying a good standard and a range of ques – shading/colour/annotation, etc. quality drawings using a wide range of techniques with annotation and detail.	(0–2) (3–4) (5–6)	
		Rathe Accura	bility stic designs showing outlines only. r more detail, sensible solutions that could work ate solutions, good fitness for purpose, detailed uction.	(0–2) (3–4) (5–6)	[12]
	(d)		ation of each of the ideas. At least 3 evaluations up to ks each.	(0–6)	
		Select	tion and justification. (1+1)	(2)	[8]
	(e)	Poor li Good High s show	ty of drawing ine quality, proportions, little detail. line work, use of colour, proportions, some detail. standard throughout with a range of techniques that clearly all detail. nsions 2 or 3 overall dimensions only – 1 Additional detail dimensions – 2	(1) (2–3) (4) (2)	
		A simp constr Most o views All cor	truction details bilistic approach showing little or no detail of function to be used. constructional detail may be obvious from overall or with some annotation. Instructional detail will be clear with good annotation dditional detail drawings as necessary.	(0–2) (3–4) (5–6)	[12]
	(f)	Suitab	le specific materials stated.	(2)	
		Appro	priate reasons for choice.	(2)	[4]

Page 3		Mark Scheme	Syllabus	Paper
		IGCSE – May/June 2013	0445	11
(g)			(1) (3) (2)	[6]
				[Total: 50]
(a)	childre	en, colourful, interesting topic, will not tear/damage,	(1 × 4)	[4]
(b)	-		(2 × 2)	[4]
(c)	maxim Comn Simple	num marks. Pro rata if fewer. nunication e drawings displaying a low standard or limited range	(0, 2)	
	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.	(3–4)		
		(5–6)		
	Simpli Rathe	stic designs showing outlines only. r more detail, sensible solutions that could work.	(0–2) (3–4)	
	construction.	(5–6)	[12]	
(d)		•	(0–6)	
	Select	ion and justification. (1+1)	(2)	[8]
(e)	Poor li Good	Poor line quality, proportions, little detail. Good line work, use of colour, proportions, some detail.	(1) (2–3)	
	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	(4)		
		(2)		
	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.		(0–2)	
			(3–4)	
		-	(5–6)	[12]
	(g) (a) (b) (c) (d)	 (g) Suitab Good (a) Accept children moved (b) Accept fold out (c) Any su maxim Comment Simple of tech Clear at Suitab Simpli Rathe Accura constr (d) Evalua 2 marine Select (e) Qualite Poor li Good High sense at an an	 IGCSE - May/June 2013 (g) Suitable method stated/described. Good detailed description of: processes; tools. (a) Accept any four additional suitable points - appealing to children, colourful, interesting topic, will not tear/damage, moved by child, etc. (b) Accept any two forms of movement - pop-up, rotating disc, fold out, slider, hinge, paper spring, etc. (c) Any suitable ideas. At least three different ideas for maximum marks. Pro rata if fewer. Communication Simple drawings displaying a good standard and a 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 construction al detail may be obvious from overall 	IGCSE – May/June 2013 0445 (g) Suitable method stated/described. Good detailed description of: processes; tools. (1) (a) Accept any four additional suitable points – appealing to children, colourful, interesting topic, will not tear/damage, moved by child, etc. (1 × 4) (b) Accept any two forms of movement – pop-up, rotating disc, fold out, slider, hinge, paper spring, etc. (2 × 2) (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. (3-4) High quality drawings using a wide range of techniques with clear annotation and detail. (5-6) Suitability (3-4) 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) (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. (1) Dimensions 2 or 3 overall dimensions on 1 – Additional detail dimensions - 2

Page) 4	Mark Scheme	Syllabus	Paper
			IGCSE – May/June 2013	0445	11
	(f)	Suitable specific materials stated.		(2)	
		Appro	priate reasons for choice.	(2)	[4]
	(g)		le method stated/described. detailed description of: processes; tools.	(1) (3) (2)	[6] [Total: 50]
3	(a)	acces	t any four additional suitable points – hygienic, easil sible, easy to clean, fits in with garden surroundings, ful, anchored to ground, etc.		[4]
	(b)		t any two safety considerations – falling from height, d fingers/limbs, slipping, location in seats, sharp , etc.	(2 × 2)	[4]
	(c)	maxim Comn Simple of tech Clear technic High c clear a Suitat Simpli	uitable ideas. At least three different ideas for num marks. Pro rata if fewer. nunication e drawings displaying a low standard or limited range nniques. drawings displaying a good standard and a range of ques – shading/colour/annotation, etc. quality drawings using a wide range of techniques wit annotation and detail. bility stic designs showing outlines only. r more detail, sensible solutions that could work.	(0–2) (3–4)	
			ate solutions, good fitness for purpose, detailed uction.	(5–6)	[12]
	(d)		ation of each of the ideas. At least 3 evaluations up t ks each.	:o (0–6)	
		Select	ion and justification. (1+1)	(2)	[8]

Page 5		Mark Scheme	Syllabus	Paper
		IGCSE – May/June 2013	0445	11
(e)	Poor I Good High s show Dimer Const A simp	ty of drawing ine quality, proportions, little detail. line work, use of colour, proportions, some detail. standard throughout with a range of techniques that clearly all detail. nsions 2 or 3 overall dimensions only – 1 Additional detail dimensions – 2 truction details plistic approach showing little or no detail of	(1) (2–3) (4) (2)	
	Most o views All cor	uction to be used. constructional detail may be obvious from overall or with some annotation. nstructional detail will be clear with good annotation dditional detail drawings as necessary.	(0–2) (3–4) (5–6)	[12]
(f)		ele specific materials stated. priate reasons for choice.	(2) (2)	[4]
(g)	•••••••••	le method stated/described. detailed description of: processes; tools.	(1) (3) (2)	[6] [Total: 50]