

MARK SCHEME for the October/November 2008 question paper

0445 DESIGN AND TECHNOLOGY

0445/01

Paper 1 (Common Core), 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.

All Examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

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

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Page 2	Mark Scheme	Syllabus	Paper
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1 (a)	Accept any four suitable points – stable in use, easy to move, tools held securely, correct height, matches kept dry, etc.	1 × 4	[4]
(b)	Accept drawings of any two fittings – spring clips, drawers, rubber straps, dowels, cup hooks, ‘slot’ fittings, etc.	2 × 2	[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. Selection and justification. (1 + 1)	0–6 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. At least two	2	
	Appropriate reasons for choice. At least two	2	[4]
(g)	Suitable method stated.	1	
	Detailed description of process, including: processes	3	
	and tools .	2	[6]
[Total: 50]			

Page 3	Mark Scheme	Syllabus	Paper
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- 2 (a) Accept any **four** suitable points – colourful, number 5, movement when opened, appeals to young child, does not frighten, etc. 1 × 4 [4]
- (b) Accept drawings of any **two** card friendly mechanisms – cams, levers, cranks, rubber bands, discs, etc. 2 × 2 [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. Selection and justification. (1 + 1) 0–6
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) Any **two** suitable methods given – coloured film, coloured card, lay on colours, printed colour, etc. 2 × 2 [4]
- (g) Suitable method stated. 1
Detailed description of process, including: **processes** 3
and **tools**. 2 [6]

[Total: 50]

Page 4	Mark Scheme	Syllabus	Paper
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- 3 (a) Accept any **four** suitable points – attracts attention, easy to clean, stable in use, no injury to users, easy to empty, etc. 1 × 4 [4]
- (b) Accept any **two** suitable methods – light sensor, pressure pad, trap door, lever movement, flap, etc. 2 × 2 [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 Selection and justification. (1 + 1) 0–6 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. At least **two** 2
- Appropriate reasons for choice. At least **two** 2 [4]
- (g) Suitable method stated. 1
- Detailed description of process, including: **processes** 3
- and **tools**. 2 [6]

[Total: 50]