

CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International General Certificate of Secondary Education

MARK SCHEME for the October/November 2014 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.

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- 1 (a) Accept any **four** additional suitable points – resists water, hygienic, easy access for items, matches bathroom style, sections labelled, acts as seat, etc. 1 × 4 [4]
- (b) Accept drawings of any **two** suitable ways – timber, halving, through/stopped housing, butt, dowel, fabric, shelves, etc. 2 × 2 [4]
- 2 (a) Accept any **four** additional suitable points – appealing to customers, reflects 'laundry', stable, colourful, lightweight/easy to carry, folds up for storage, etc. 1 × 4 [4]
- (b) Accept drawings of any **two** flexible joints – scored, tape, rings, comb, cord, plastic hinge, etc. 2 × 2 [4]
- 3 (a) Accept any **four** additional suitable points – does not dirty clothes, weatherproof, easy/simple to operate, cannot catch fingers in mechanism, easy to reach, etc. 1 × 4 [4]
- (b) Accept any **two** mechanisms – pulley system, gear train, chain and sprocket, ratchet, winding drum, etc. 2 × 2 [4]

Questions 1, 2 and 3

- (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]

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(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 (1)	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. (1 + 1)	2
Appropriate reasons for choice (1 + 1)	2 [4]

(g) Suitable method stated	1
Good detailed description of: processes	3
tools	2 [6]

[50]