

CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International General Certificate of Secondary Education

MARK SCHEME for the October/November 2015 series

0445 DESIGN AND TECHNOLOGY

0445/11

Paper 1 (Product 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 – lightweight/easy to transport/carry, pet cannot get hurt, keeps pet protected, food/water does not spill, easy access for pet, easy access to food/water, secure, no sharp edges etc. 1×4 [4]
- (b) Accept drawings of any **two** access methods for pet – hinged door on side, hinged flap on top, sliding door/flap, top clips off/on base, etc. 2×2 [4]
- 2 (a) Accept any **four** additional suitable points – attractive colour/shape, realistic animal shapes, appeals to children, easy to clean/hygienic, parts easy to handle, no small parts, etc. 1×4 [4]
- (b) Accept drawings of any **two** matching methods – fitting shapes, slide through slots, colours, size, rewards, sound feedback, etc. 2×2 [4]
- 3 (a) Accept any **four** additional suitable points – weather/water resistant, minimal power use, easy to set up, clear indication, does not frighten pet, does not damage door, etc. 1×4 [4]
- (b) Accept drawings of any **two** display methods – coloured lights/discs, flaps on signs, sliding signs, 'flags', semaphore arms, 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, construction detail 5–6 [12]

- (d) Evaluation of each of the ideas. At least 3 evaluations up to 2 marks each 0–6
 Selection and justification. (1 + 1) 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 described.	1
Good detailed description of: processes	0–3
tools.	0–2 [6]

[50]