

CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International General Certificate of Secondary Education

MARK SCHEME for the May/June 2015 series

0445 DESIGN AND TECHNOLOGY

0445/13

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 – easy to move around, easy to access dishes, dishes do not fall out, protects food, additional items/use, fits in with decor/room, etc. (1×4) [4]
- (b) Accept drawings of any **two** methods of securing dishes – rails, stand up edges, friction surface, recess in surface, etc. (2×2) [4]
- 2 (a) Accept any **four** additional suitable points – attractive colour/shape, has impact, lightweight/easy to carry, easy to access items, items held separately, eating platform/surface, recyclable materials, etc. (1×4) [4]
- (b) Accept drawings of any **two** carrying handles – string/rope/tape, cardboard strip, cut out slots, extra layers, etc. (2×2) [4]
- 3 (a) Accept any **four** additional suitable points – adjustable to height of person/surface, takes different sizes and shapes of book, easy to store, simple to operate, ‘kitchen’ proof, etc. (1×4) [4]
- (b) Accept drawings of any **two** protection methods – integral splatter guard, freestanding guard, guard fixed to wall/cupboard, sliding cover, 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]**

[Total: 50]