CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the October/November 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 October/November 2013 series for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level components and some Ordinary Level components.

CAMBRIDGE
International Examinations

www.theallpapers.com

1 (a) Accept any **four** additional suitable points – easy to load/unload, well balanced, hygienic, easy to clean, ergonomic for child, colourful, safe for child, etc. **[1 × 4] [4]**

(b) Accept drawings of any **two** types of carcase construction – dovetail, rebate, screwed/nailed butt, dowelled, doors/flaps, 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]**

(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]

(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. **[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]

© Cambridge International Examinations 2013
www.theallpapers.com

2 (a) Accept any four additional suitable points – colourful, attract attention, simple shape rounded corners, easy to cut out, child can fit together, etc. **[1 × 4] [4]**

(b) Accept any **two** methods of attachment – plastic pegs, bifurcated rivets, plastic/wooden rod, 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. **[0–6]**
Selection and justification. **[1 + 1] [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]**
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 **[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]

© Cambridge International Examinations 2013
www.theallpapers.com

3 (a) Accept any **four** additional suitable points – simple to fit, safe shape, hygienic, stays in place, rugged design, fits hand, fits range of taps, etc. **[1 × 4] [4]**

(b) Accept any **two** methods – increased leverage, larger gripping surface, better shaped grip, mechanisms, 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.
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 **[0–6]**
Selection and justification. **[1 + 1] [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. **[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]

© Cambridge International Examinations 2013
www.theallpapers.com