

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS  
International General Certificate of Secondary Education

**MARK SCHEME for the October/November 2011 question paper  
for the guidance of teachers**

**0445 DESIGN AND TECHNOLOGY**

**0445/13**

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

- Cambridge will not enter into discussions or correspondence in connection with these mark schemes.

Cambridge is publishing the mark schemes for the October/November 2011 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.

Page 2	Mark Scheme: Teachers' version	Syllabus	Paper
	IGCSE – October/November 2011	0445	13

- 1 (a) Accept any **four** additional suitable points – cutting surface, no damage to furniture, storage for tools and paints, lightweight, comfortable to carry, etc. (1x4) [4]
- (b) Accept drawings of any **two** suitable folding/adjusting/dismantling methods – hinging, sliding, slotting together, dowels, screws, KD fittings, etc. (2x2) [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 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 (2)
- Appropriate reasons for choice (2) [4]
- (g) Suitable method stated (1)
- Good detailed description of: processes (3)
- tools (2) [6]

[Total: 50]

Page 3	Mark Scheme: Teachers' version	Syllabus	Paper
	IGCSE – October/November 2011	0445	13

- 2 (a) Accept any **four** additional suitable points – lightweight, easy to carry, strong handles, easily assembled, easy to clean, ventilation for pet, etc. (1x4) [4]
- (b) Accept any **two** strengthening methods – corrugation, folding, ridges, additional tape, etc. (2x2) [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 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 (2)
- Appropriate reasons for choice (2) [4]
- (g) Suitable method stated (1)
- Good detailed description of: processes (3)
- tools (2) [6]

[Total: 50]

Page 4	Mark Scheme: Teachers' version	Syllabus	Paper
	IGCSE – October/November 2011	0445	13

- 3 (a) Accept any **four** additional suitable points – lightweight, simple to use, no damage to fruit, accepts various fruit shapes and sizes, adjustable, comfortable to hold, etc. (1x4) [4]
- (b) Accept any **two** adjustment systems – sliding in or on, tube in tube, twist to tighten/loosen, wing nuts, etc. (2x2) [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 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 (2)
- Appropriate reasons for choice (2) [4]
- (g) Suitable method stated (1)
- Good detailed description of: processes (3)
- tools (2) [6]

[Total: 50]