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.
1  (a) Suitable finish named  
   e.g. Paint, varnish  
   Suitable reason for choice given  
   e.g. To enhance appearance, to protect surface  
   [2]

   (b)  
      (i) Cutting out of material described  
          (0–2)  
          Smoothing edges of material described  
          (0–2)  
          Details of tools, equipment and safety precautions (if necessary)  
          (0–2)  
          [6]

      (ii) Method of joining described  
           (0–3)  
           Details of tools, equipment and safety precautions (if necessary)  
           (0–3)  
           [6]

      (iii) Method of joining described  
           (0–3)  
           Details of tools, equipment and safety precautions (if necessary)  
           (0–3)  
           [6]

   [Total: 20]

2  (a) Suitable thickness of card stated  
   e.g. 1–2mm, 1000–2000 microns  
   Suitable reason for choice given  
   e.g. related to strength/stability of material and its ability to support weight of leaflets  
   [2]

   (b) Correct assembly shown as pictorial view  
       (1)  
       Front and back  
       (0–2)  
       Struts  
       (0–2)  
       'Locking' pieces  
       (1)  
       [6]

   (c) Cutting out and folding process described  
       (0–3)  
       Details of tools, equipment and safety precautions (if necessary)  
       (0–3)  
       [6]

   (d) Die cutting process described  
       (0–3)  
       Details of tools, equipment and safety precautions (if necessary)  
       (0–3)  
       [Total: 20]
3 (a) Suitable material named
   e.g. acrylic, polystyrene, aluminium, stainless steel
   Suitable reason for choice given
   e.g. Surface finish is not required
   [2]

   (b) (i) Process of bending described
   (0–3)
   Details of tools, equipment and safety precautions (if necessary)
   (0–3) [6]

   (ii) Cutting out material described
   (0–2)
   Smoothing edges of material described
   (0–2)
   Details of tools, equipment and safety precautions (if necessary)
   (0–2) [6]

   (iii) Marking out of holes described
   (0–2)
   Drilling holes described
   (0–2)
   Details of tools, equipment and safety precautions (if necessary)
   (0–2) [6]

   [Total: 20]

4 (a) Reference to recycling
   Made from 40% recycled material
   [2]

   (b) Problem 1 described
   (0–2)
   Problem 2 described
   (0–2)
   e.g. Problems related to egg moving about, no side fold over flaps, 'windows' and/or tuck in flap too big, poor security
   [4]

   (c) Explanation of how problem 1 could be overcome
   (0–3)
   Explanation of how problem 2 could be overcome
   (0–3)
   e.g. Inner packaging added to prevent egg moving, additional flaps added, sizes of 'windows' and tuck in flap changed, security sticker added
   [6]

   (d) Situation has been analysed and relevant issues/points identified.
   (0–3)
   Explanation of why issues/points are considered relevant
   (0–3)
   Specific examples/evidence used to support conclusions
   (0–2) [8]

   [Total: 20]
5 (a) Appropriate explanation
   e.g. Acts as handle to pull out drawer, provides space for slot in label which
   identifies contents of drawer [2]

   (b) Problem 1 described
       Problem 2 described
       e.g. Problems related to poor stability and CDs falling out of slots 4

   (c) Explanation of how problem 1 could be overcome
       Explanation of how problem 2 could be overcome
       e.g. Increasing size of base, adding weight to base, making slots deeper,
       making slots at an angle [6]

   (d) Situation has been analysed and relevant issues/points identified.
       Explanation of why issues/points are considered relevant
       Specific examples/evidence used to support conclusions [8]

       [Total: 20]

6 (a) Appropriate explanation
   e.g. spring, allows board to bend in wind, makes it harder to knock board over [4]

   (b) Problem 1 described
       Problem 2 described
       e.g. Nothing to hold two frames together, poor stability, two frames can slide
       apart, board can easily collapse [4]

   (c) Explanation of how problem 1 could be overcome
       Explanation of how problem 2 could be overcome
       e.g. join two frames together with hinges or something similar, connect bottom
       of frames together chain or something similar [6]

   (d) Situation has been analysed and relevant issues/points identified.
       Explanation of why issues/points are considered relevant
       Specific examples/evidence used to support conclusions [8]

       [Total: 20]
7  (a) One pre-conceived idea presented
   OR
   The development and selection of a range of ideas into a single design
   proposal which would appear to work but lacks some technical detail
   OR
   The development and selection of a range of ideas into a single design
   proposal that includes sufficient technical detail to show that the proposed
   solution would clearly work
   Clarity and quality of sketching and explanatory notes
   Evaluation (reasons for selection)
   (0–3) [16]
   (4–7) [8–10]
   (8–10)

(b) As for part (a) [16]

(c) As for part (a) [16]

(d) As for part (a) [16]

(e) The drawing will exhibit a reasonable standard of outcome and show some of
   the required design features
   OR
   The drawing will exhibit a good standard of outcome and show most of the
   design features required to make the product function as intended
   OR
   The drawing will be completed to a high standard of outcome and fully show
   the design features required to make the product function as intended
   Some use made of colour and tone to enhance the visual impact of the
   drawing
   OR
   Good use has been made of colour and tone to enhance the visual impact of
   the drawing
   OR
   Very good use has been made of colour, tone and material representation to
   enhance the visual impact of the drawing
   (0–2) [0–3] [4–7] [8–10]
   (3–4) [5–6] [16]

[Total: 80]

Questions 8 and 9 as for Question 7