

GENERAL CERTIFICATE OF SECONDARY EDUCATION

DESIGN AND TECHNOLOGY 1955/02

GRAPHIC PRODUCTS (FULL COURSE)

Paper 2 (Higher Tier)

Candidates answer on the Question Paper

OCR SUPPLIED MATERIALS:

None

OTHER MATERIALS REQUIRED:

Drawing aids may be used

DURATION: 1 hour 30 minutes

Afternoon

Friday 11 June 2010

1955/02
1055/02

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SUITABLE FOR VISUALLY IMPAIRED CANDIDATES

INSTRUCTIONS TO CANDIDATES

- Write your name clearly in capital letters, your Centre Number and Candidate Number in the boxes above and on each of the A3 answer sheets inside this folder.
- Read each question carefully and make sure that you know what you have to do before starting your answer.
- Answer ALL the questions.
- Use black ink. Pencil may be used for any drawing, graphs and diagrams.
- ALL diagrams should be drawn accurately unless otherwise stated. Drawing aids may be used. Colour or shading should only be used if asked for in the question. Use your discretion where dimensions are not given.
- Do NOT write in the bar codes.
- Write your answer to each question in the space provided, however additional paper may be used if necessary.
- | | | | |
|----------------------|--|--|--|
| 1 | | | |
| Examiner's Use Only: | | | |

INFORMATION FOR CANDIDATES			
2			

- | | | | |
|--|---|--|--|
| • The number of marks is given in brackets [] at the end of each question | 3 | | |
| • or part question. | | | |
| • The total number of marks for this Section is 50. | | | |
| • Dimensions are in mm unless stated otherwise. | 4 | | |
| • Marks will be awarded for the use of correct drawing conventions. | 5 | | |

Examiners' Use Only:			
1			
2			
3			
4			
5			
Total			

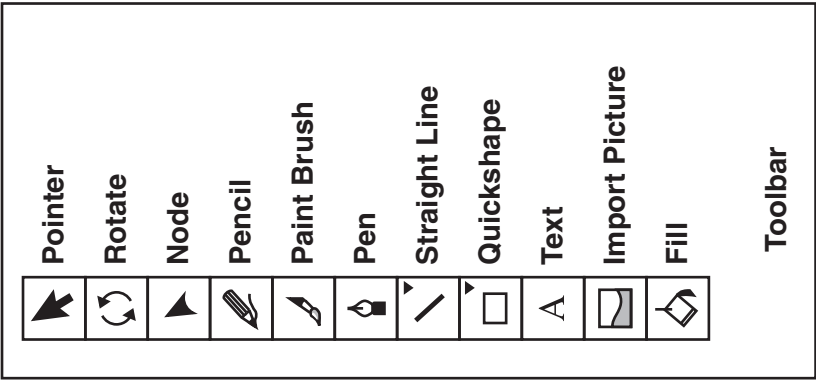
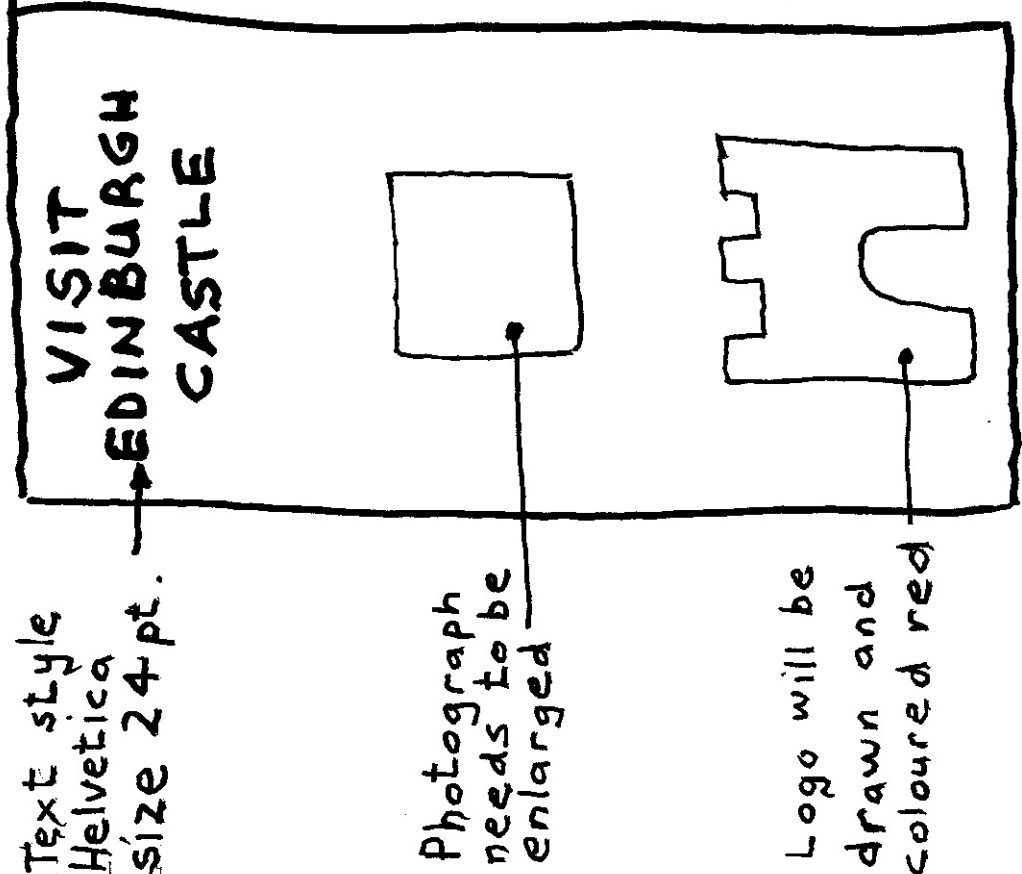
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Turn over

- 1 The freehand sketch below shows an initial idea for the front of a leaflet about Edinburgh Castle.
The final design will be produced on a computer using tools from the toolbar shown below.



- (a) Tick (✓) the type of computer software that would be best to produce the final design. [1]

Spreadsheets	Database	CAM	2D CAD

- (b) The logo will be used on a range of other products such as posters and packaging.

State TWO advantages of having the logo stored on a computer system when designing these products.

Advantage 1 _____ [1]

Advantage 2 _____ [1]

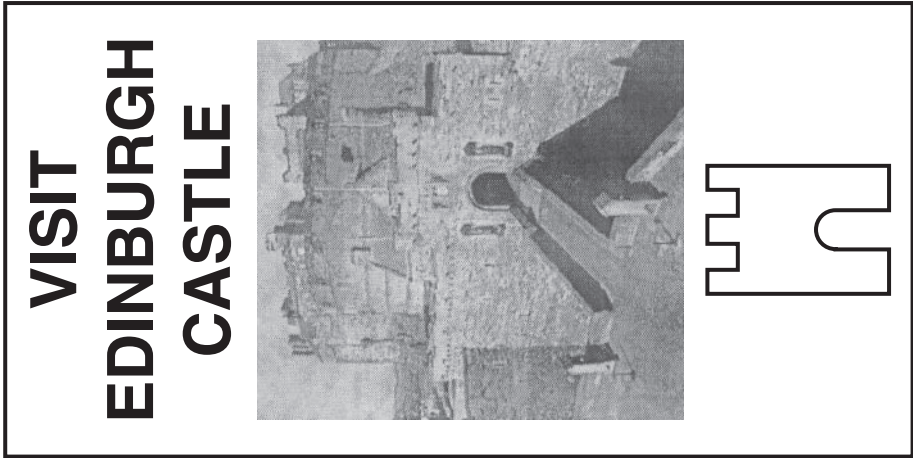
- (c) State a method of importing a photograph taken with a digital camera into a computer system without printing the image.

_____ [1]

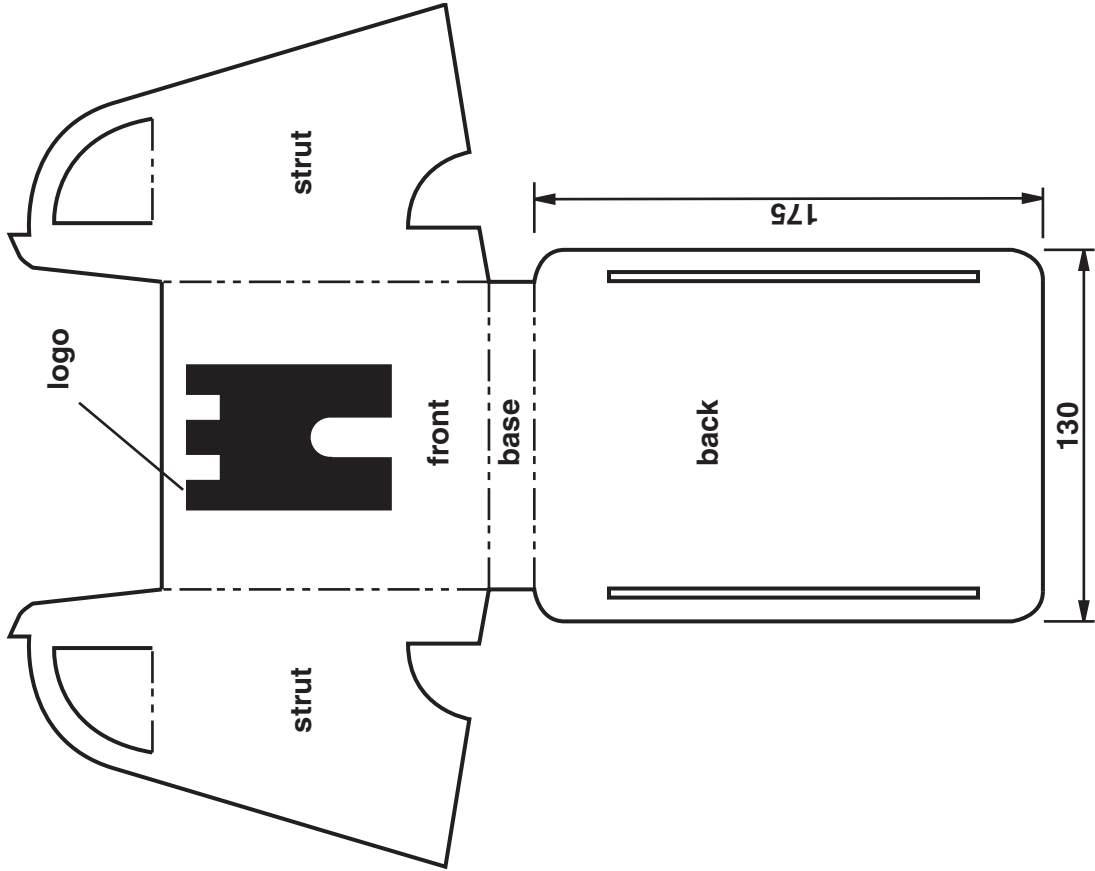
- (d) Add sketches and notes to the given drawing to explain how the photograph would be enlarged using tools from the toolbar. [3]



- (e) Add sketches and notes to the given drawing to explain how the logo would be coloured red using tools from the toolbar. [3]



2 The development (net) of a holder for leaflets about Edinburgh Castle is shown below.
The leaflet holder is made from card.



(a) State a suitable thickness of card for making the leaflet holder and give ONE reason for your choice.

Thickness of card [1]

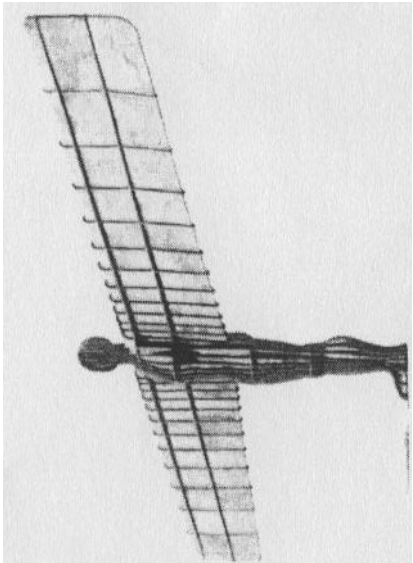
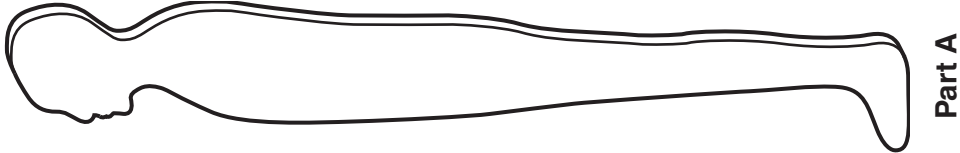
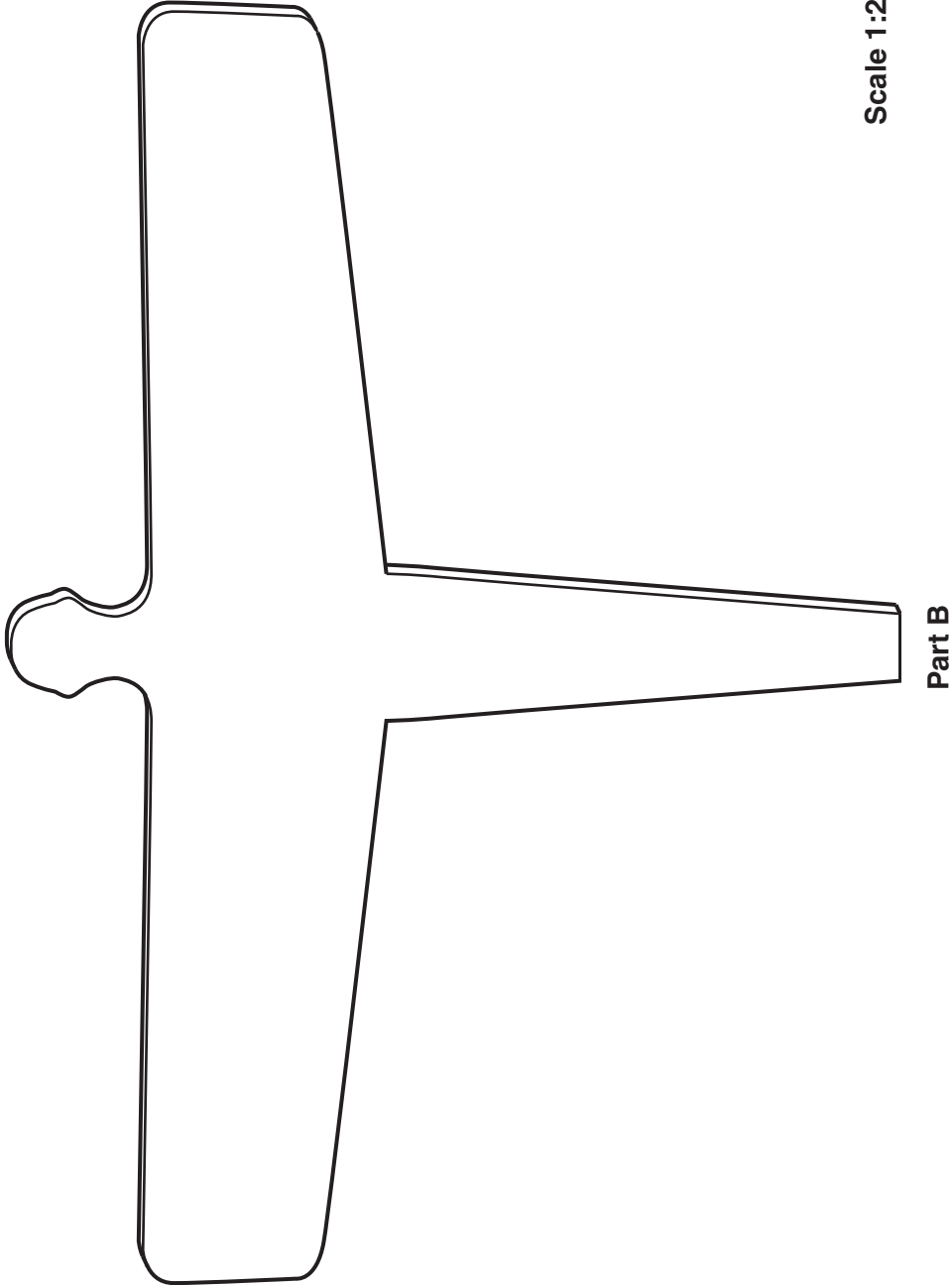
Reason for choice [1]

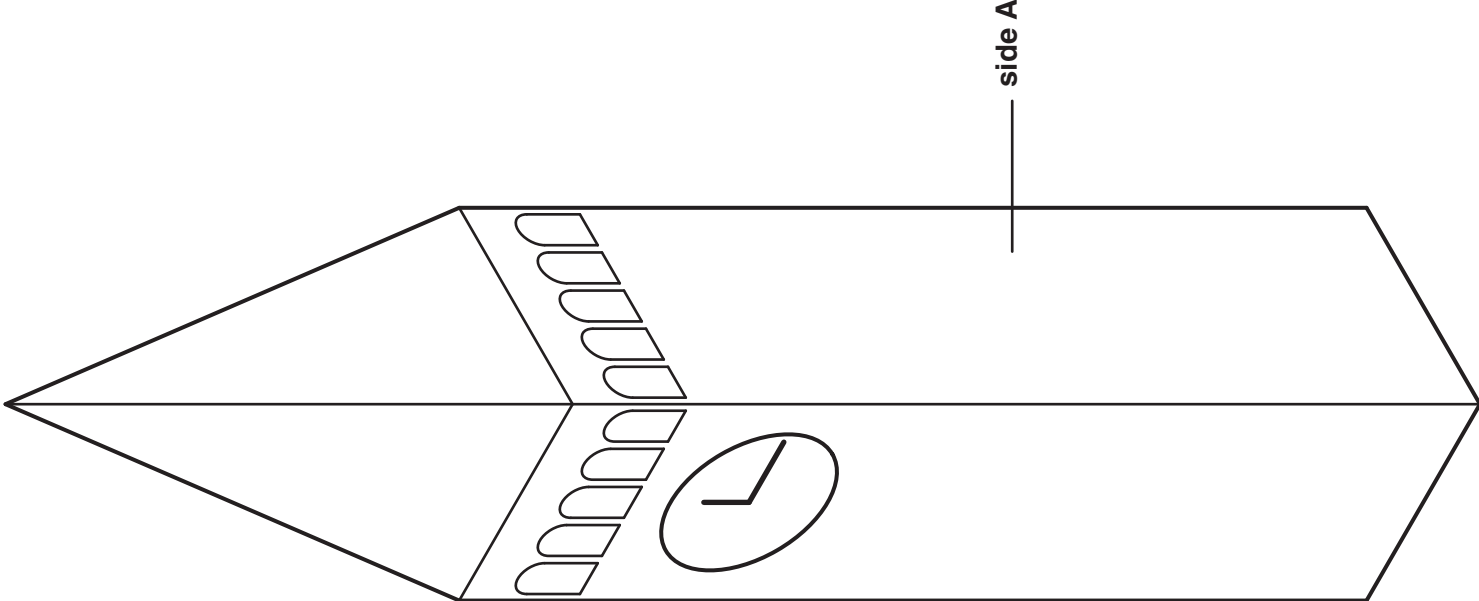
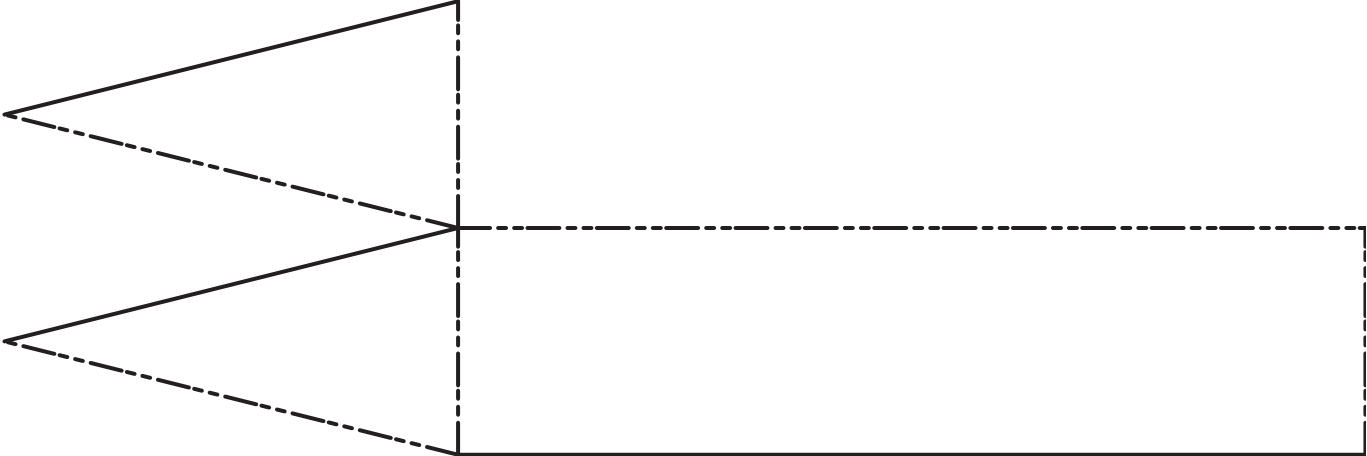
(b) Sketch a pictorial (3D) view of the assembled leaflet holder.
Do not draw the logo.

[4]

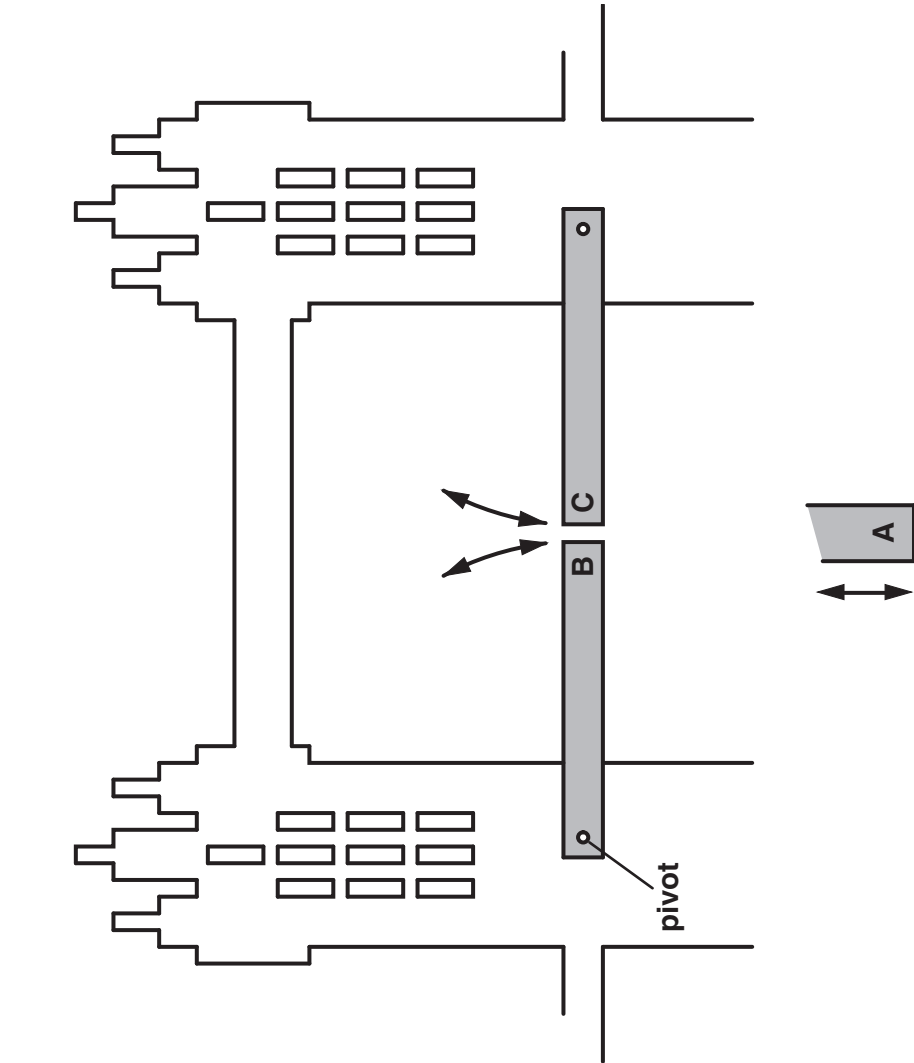
(c) Use sketches and notes to describe how a stencil could be made and used to add the logo to the front of the leaflet holder.

[4]

<div data-bbox="113 2267 273 2843"><p>3 The drawings on the right show the two main parts to make a model based on The Angel of the North Sculpture. The model will be made from 5 mm thick foamboard.</p></div> <div data-bbox="329 2282 714 2807"></div> <div data-bbox="743 2359 772 2733"><p>Angel of the North Sculpture</p></div>	<div data-bbox="113 2015 1010 2157"><p>Part A</p></div> <div data-bbox="113 706 1010 1917"><p>Part B</p></div> <div data-bbox="924 706 953 825"><p>Scale 1:2</p></div>	<div data-bbox="113 112 207 608"><p>(a) Use a sketch and notes to explain what foamboard looks like and what it is made from. [2]</p></div>
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<div data-bbox="113 2092 401 2843"><p>4 A pictorial (3D) freehand sketch of a model of a clock tower is shown below. The model is made from card. [2]</p><p>(a) On side A sketch the missing clock face and hands. [2]</p><p>(b) Add pencil shading to the sketch to enhance its 3D appearance. [2]</p></div> <div data-bbox="514 2157 1896 2718"></div>	<div data-bbox="113 1246 239 1988"><p>(c) Use drawing instruments to complete the drawing of the development (net) of the model. Do not add the surface details. Clearly show cut lines, fold lines and glue tabs. [4]</p></div> <div data-bbox="300 1329 1577 1754"></div> <div data-bbox="1839 863 1864 1484"><p>Development (net) of the model of a clock tower</p></div> <div data-bbox="113 97 336 629"><p>(d) The model is to be modified so that it can be used as a money box. Use a sketch and notes to show a modification which allows the model to be opened and closed to remove the money. [2]</p></div>	<div data-bbox="1980 2267 2005 2875"><p>1955/02 & 1055/02 D & T: GRAPHIC PRODUCTS</p></div> <div data-bbox="1980 1834 2005 2044"><p>Candidate Name _____</p></div> <div data-bbox="1980 1157 2005 1400"><p>Candidate Number _____</p></div> <div data-bbox="1980 373 2005 804"><p>Centre Number _____</p></div>
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5 An incomplete design for a working 2D model of Tower Bridge is shown below. As part A is pushed and pulled the bridge raises and lowers.



(a) Name the type of motion that takes place when:

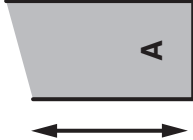
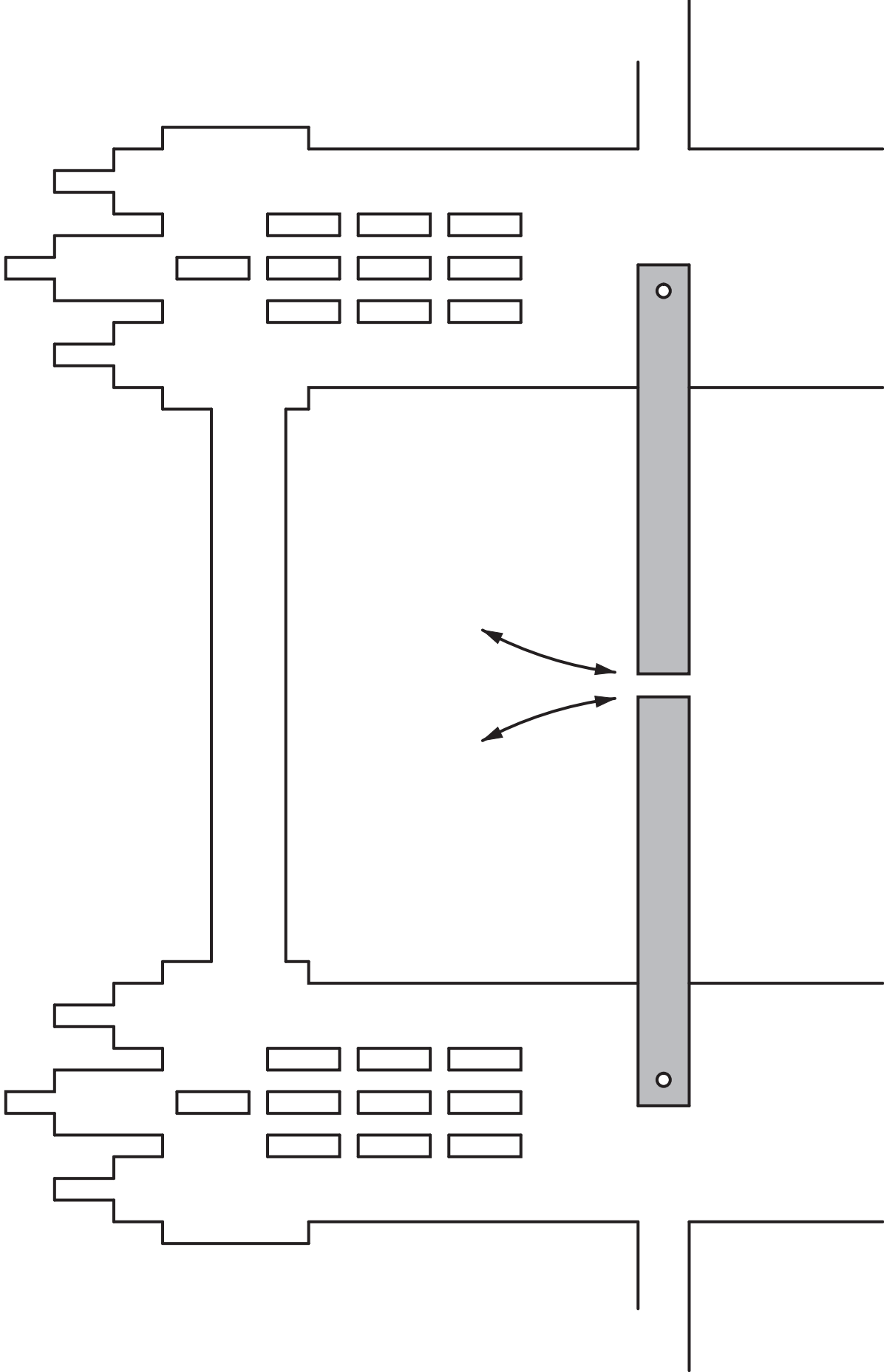
(i) part A is pushed and pulled up and down in a straight line;

_____ [1]

(ii) B and C move up and down following a curved path as the bridge is raised and lowered.

_____ [1]

(b) Complete the drawing below by adding a linkage mechanism between part A and the two opening parts of the bridge. [4]
The linkage must be made from strips of card.



(c) Draw a key to show which are fixed pivots and which are moveable pivots on the mechanism. [2]

(d) Sketch and name a component that could be used to both join the strips together and act as a pivot. [2]



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