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OCR
RECOGNISING ACHIEVEMENT

H

GENERAL CERTIFICATE OF SECONDARY EDUCATION

DESIGN AND TECHNOLOGY

1955/02
1055/02

Graphic Products (Full Course)
Graphic Products (Short Course)
Paper 2 (Higher Tier)

Candidates answer on the Question Paper

OCR Supplied Materials:
None

Other Materials Required:
Drawing aids may be used

Friday 11 June 2010
Afternoon

Duration: 1 hour 30 minutes

Candidate Forename		Candidate Surname	

Centre Number						Candidate Number				

MODIFIED LANGUAGE

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.

INFORMATION FOR CANDIDATES

- The number of marks is given in brackets **[ ]** at the end of each question or part question.
- The total number of marks for this Section is **50**.
- Dimensions are in mm unless stated otherwise.
- Marks will be awarded for the use of correct drawing conventions.
- This document consists of **3** printed sheets.

Examiner's Use Only:			
1			
2			
3			
4			
5			
Total			

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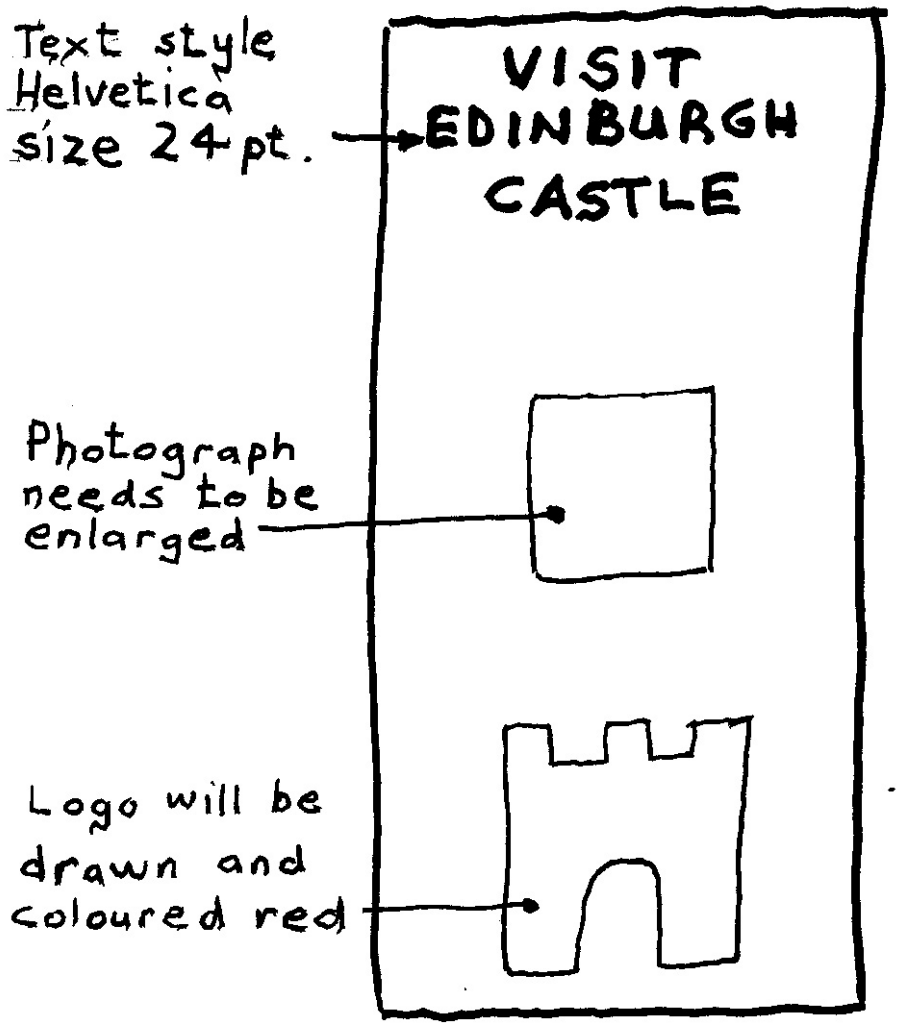
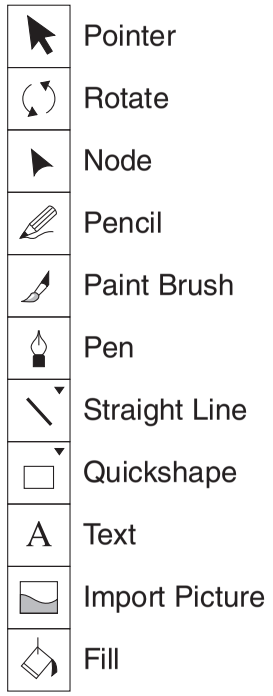
1 The freehand sketch below shows an initial idea for the front of a leaflet about Edinburgh Castle. The final design will be produced on a computer using tools from the toolbar shown below.





Toolbar

(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.

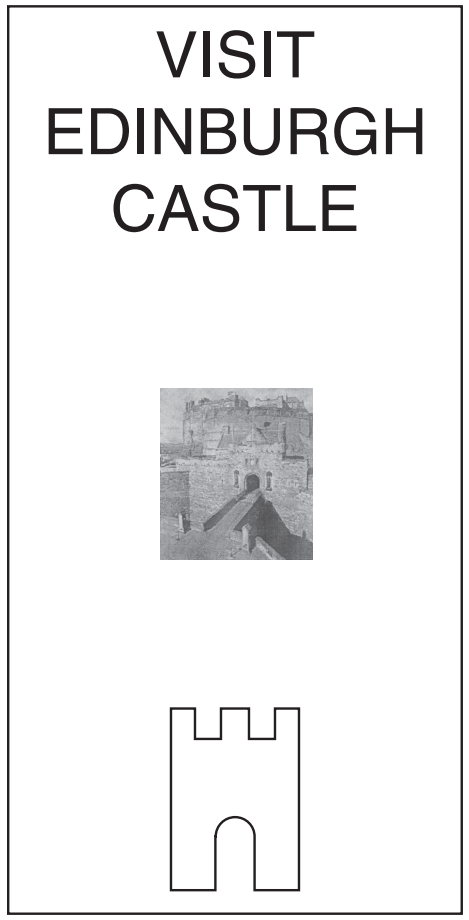
_____

_____

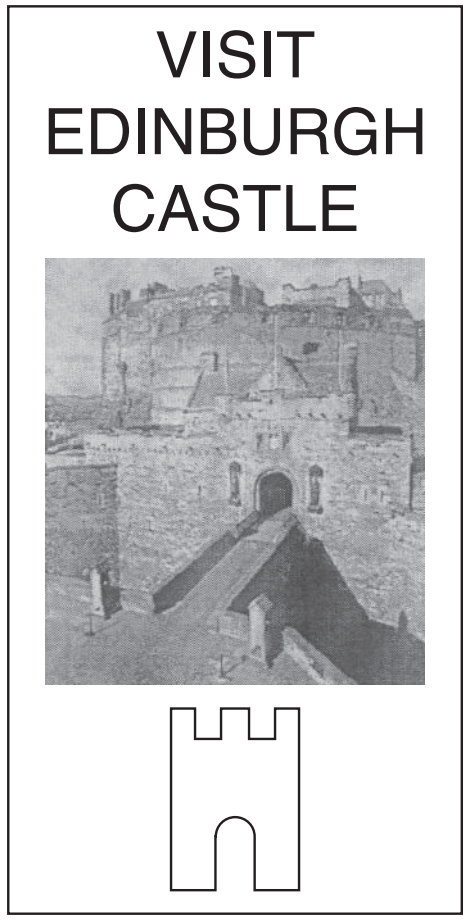
_____

_____ **[1]**

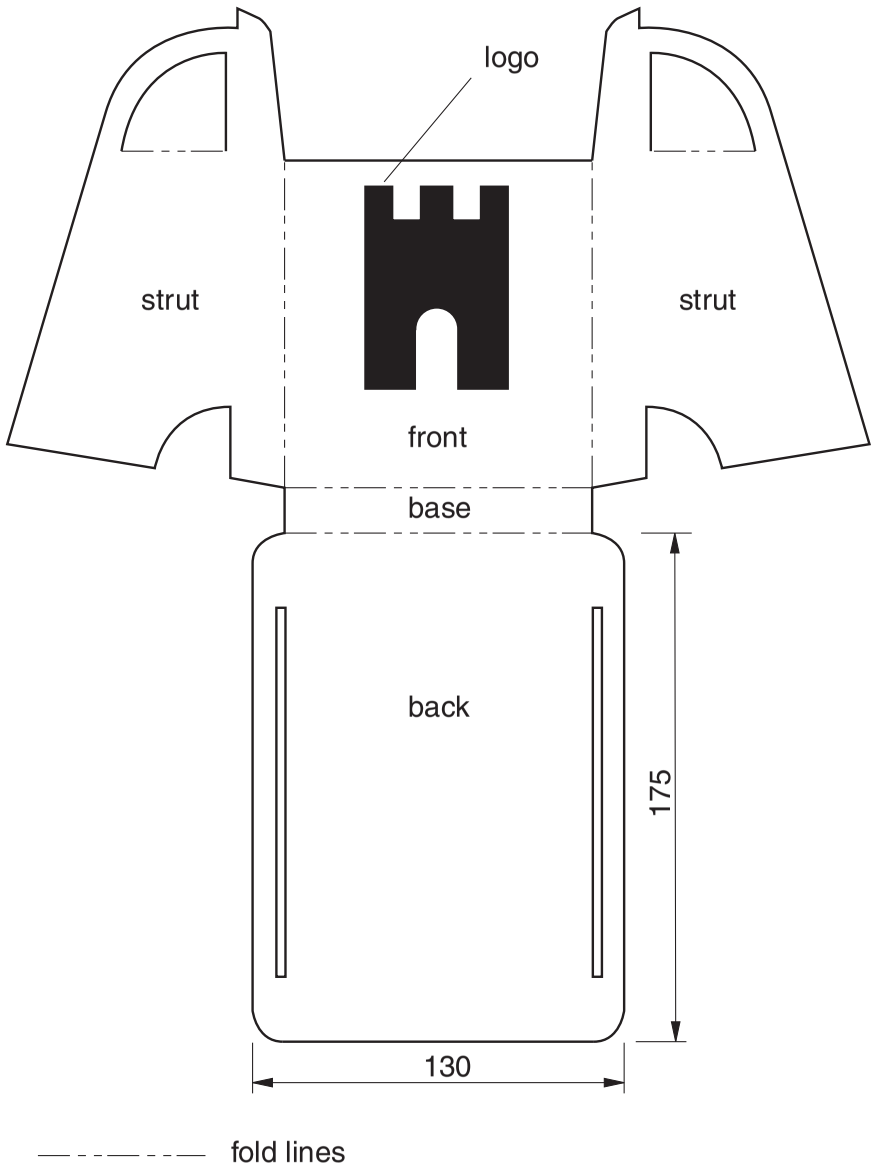
(d) Add sketches and notes to the given drawing to explain how the photograph would be enlarged using tools from the toolbar. **[3]**



(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 _____

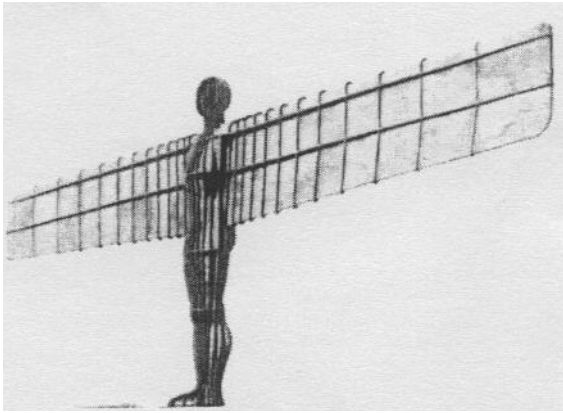
_____ **[1]**

(b) Sketch a pictorial (3D) view of the assembled leaflet holder.
Do not draw the logo. **[4]**

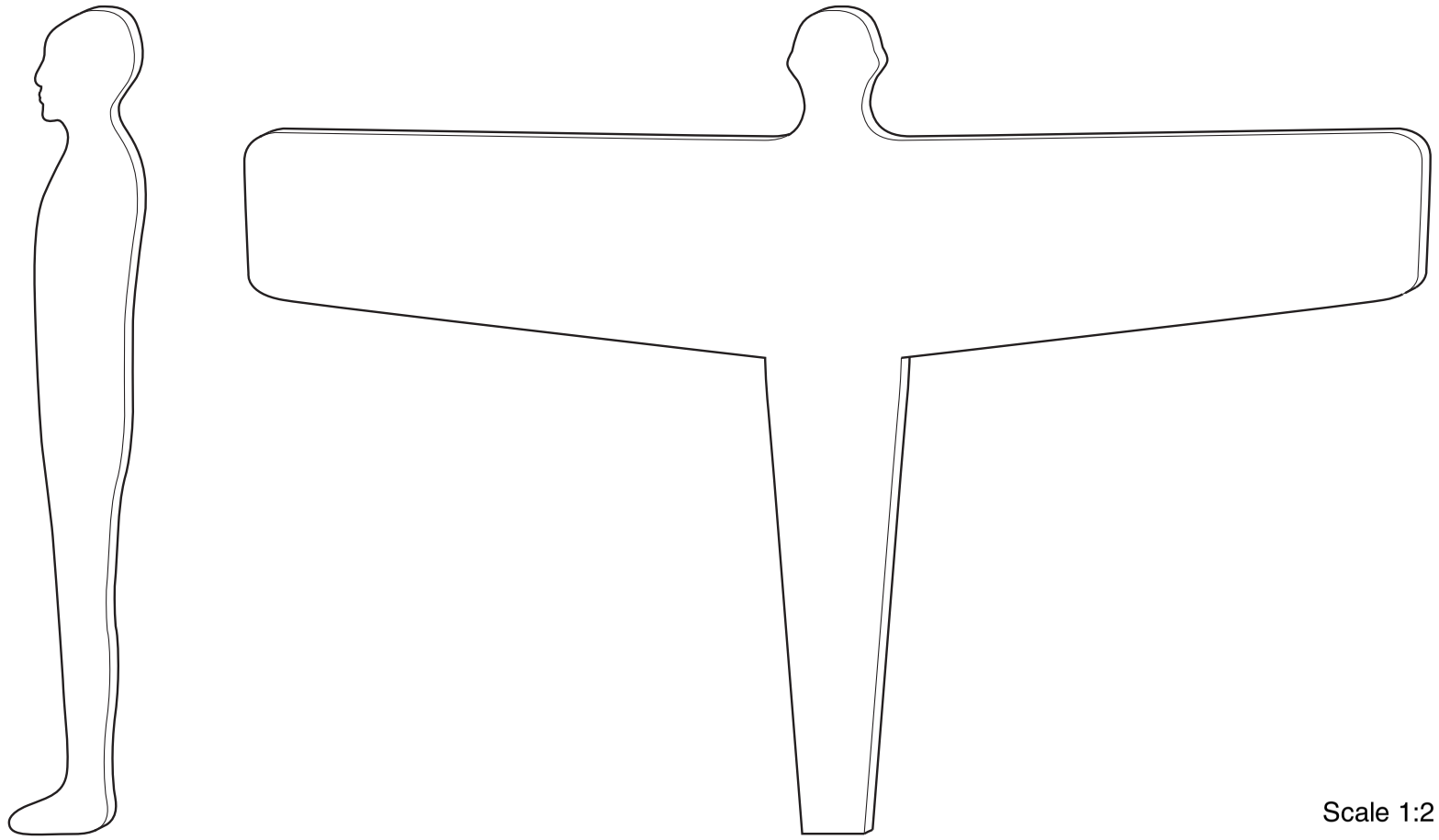
(c) Use sketches and notes to describe how a stencil could be made and used to add the logo to the front of the leaflet holder. **[4]**

 Candidate Name _____ Candidate Number _____ Centre Number _____

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.



Angel of the North Sculpture



(a) Use a sketch and notes to explain what foamboard looks like and what it is made from. **[2]**

(b) Use sketches and notes to show how Part A and Part B could slot together to make the model.
No glue or other additional materials are to be used. **[4]**

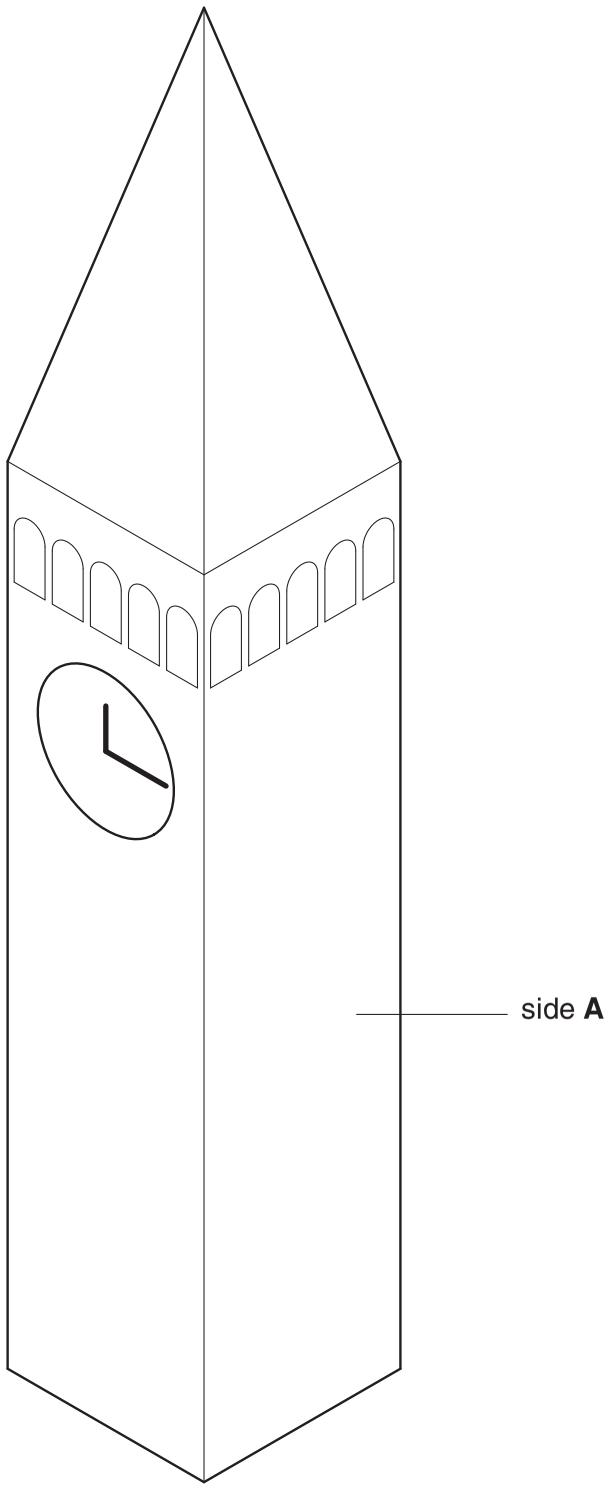
(c) Tests showed that the model was very unstable and easily fell over.

Use sketches and notes to design a foamboard base which would make the model more stable.
You must show how the base could be joined to the model without the use of glue or other additional materials. **[4]**

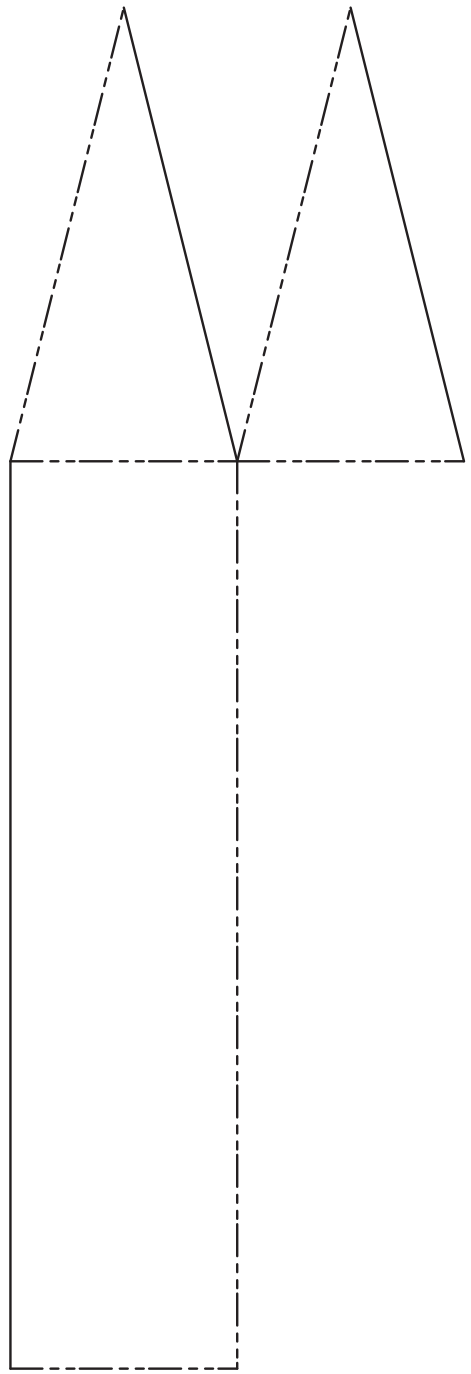
4 A pictorial (3D) freehand sketch of a model of a clock tower is shown below.
The model is made from card.

(a) On side A sketch the missing clock face and hands. **[2]**

(b) Add pencil shading to the sketch to enhance its **3D** appearance. **[2]**



(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]**



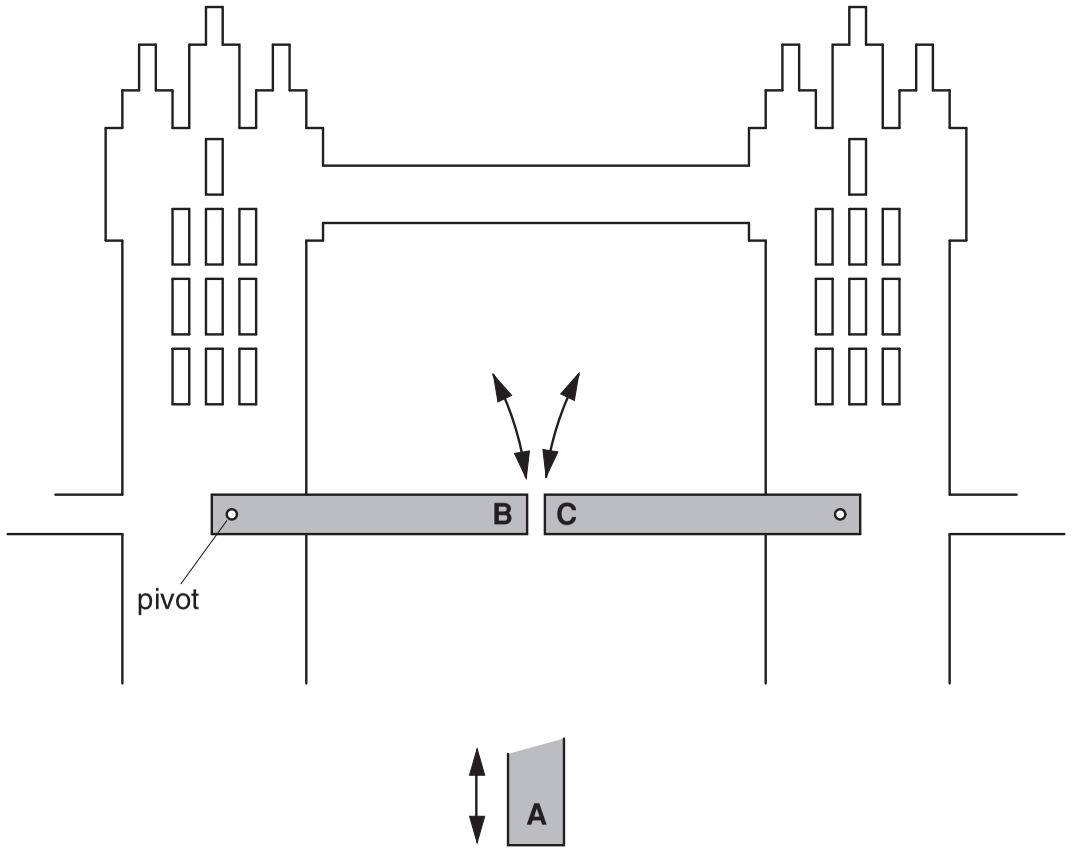
Development (net) of the model of a clock tower

(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]**

Candidate Name _____ Candidate Number _____ Centre Number _____

5 An incomplete design for a working 2D model of Tower Bridge is shown below. Pushing and pulling part A raises and lowers the bridge.



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

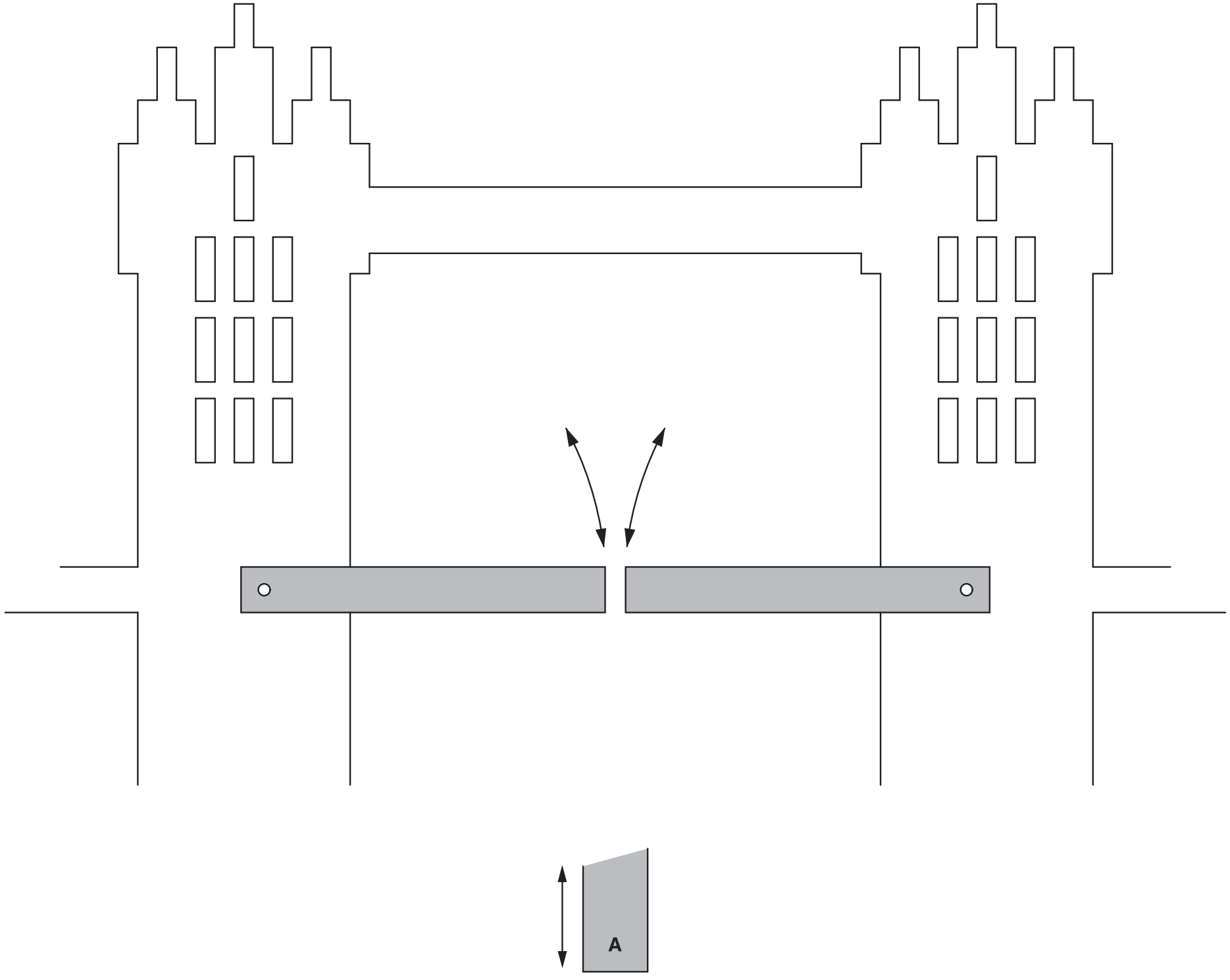
(i) part A is pushed and pulled up and down in a straight line;

_____ **[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. The linkage must be made from strips of card. **[4]**



(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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