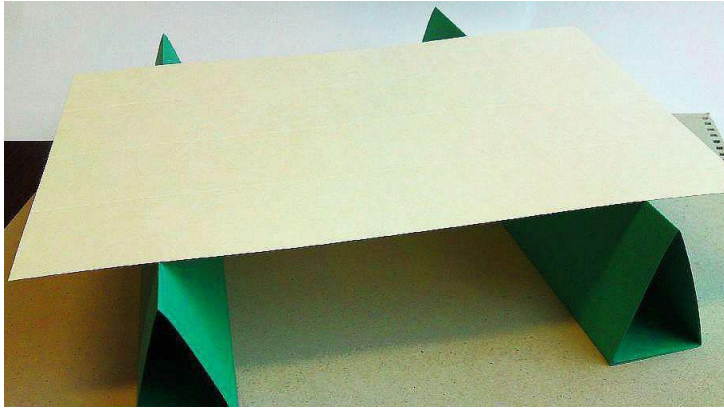


Group I - Beam (slab) bridge

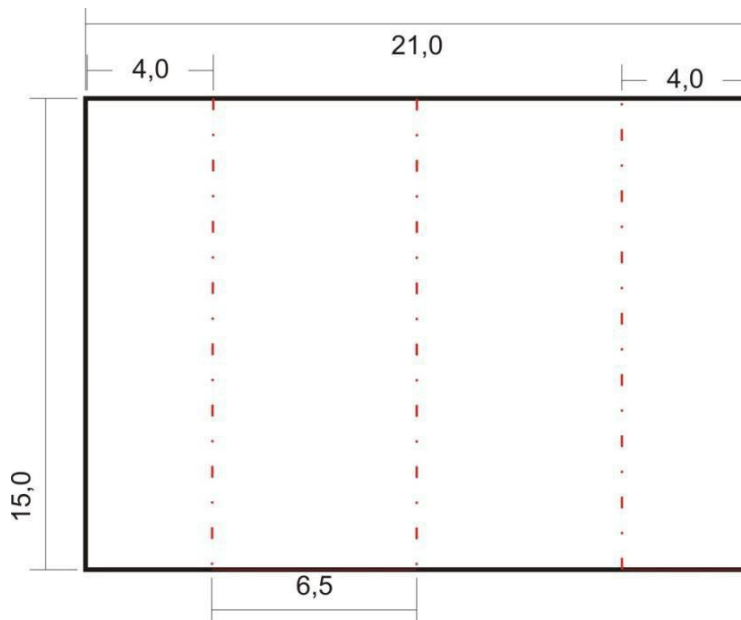


Materials:

1. two supports
2. one sheet of A4 technical paper.

Supports:

- a sheet of A4 technical paper (printed), a ruler, scissors, glue.
Each sheet should be bent along the dotted lines as shown in the diagram below:



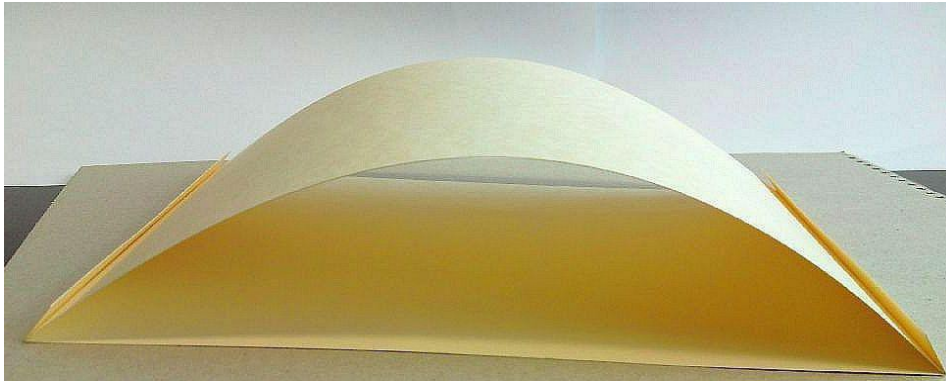
Result a triangular prism is formed with a 4 cm base (1.57 in) and two sides 6.5 cm (2.55 in) in length. The two sections making up the base should be glued together so that the supports is more stable.

Execution:

After performing several tests, decide where to place the supports and arrange the supports with appropriate spacing.

The sheet should then be placed on the supports. Weights – e.g. wooden blocks in the shape of a locomotive and carriages – should be arranged on top.

Group II - Arch bridge

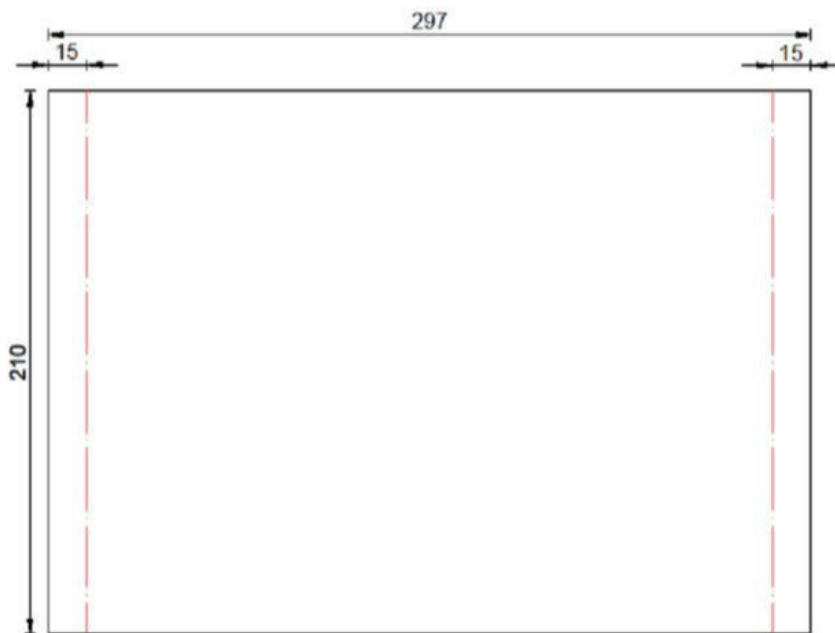


Materials:

1. one component of the arch bridge,
2. a sheet of A4 technical paper.

A component of the arch bridge model:

- a sheet of A4 technical paper printed, a ruler, scissors.
Gently indent the sheet (do not cut) with a blunt knife or ruler along the short edge at a distance of 1.5 cm (0.59 in) from the left and right side as shown. This will make it easier to bend the edges when building the model bridge.

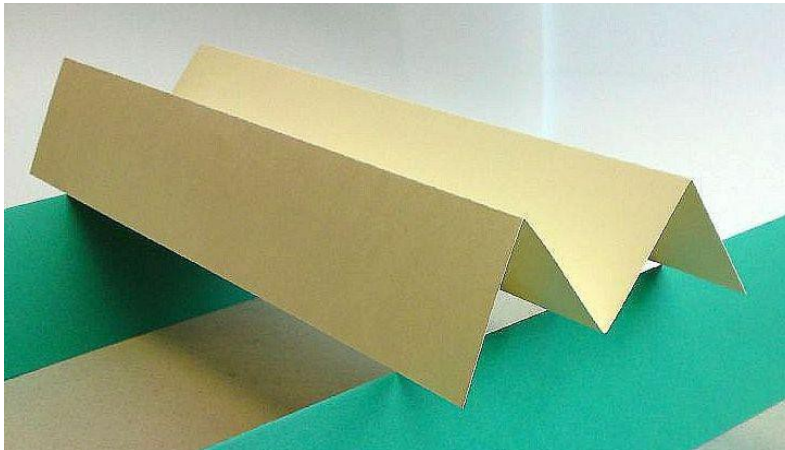


Execution:

The component of the arch bridge should be bent according to the instructions, and sheet A4 should be arranged in the folds as can be seen in the photograph.

Test the strength of the structure by arranging weights on top of it, e.g., wooden blocks in the shape of a locomotive and railcars.

Group III - Corrugated beam bridge (page 1)



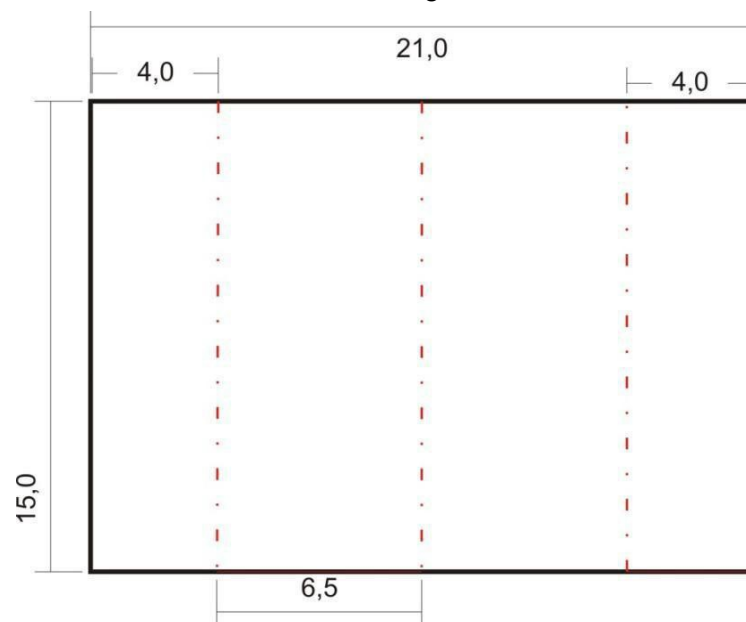
Materials:

1. two supports,
2. one component of the corrugated beam bridge model.

Supports:

- a sheet of A4 technical paper (printed), a ruler, scissors, glue.

Each sheet should be bent along the dotted lines as shown in the diagram below:



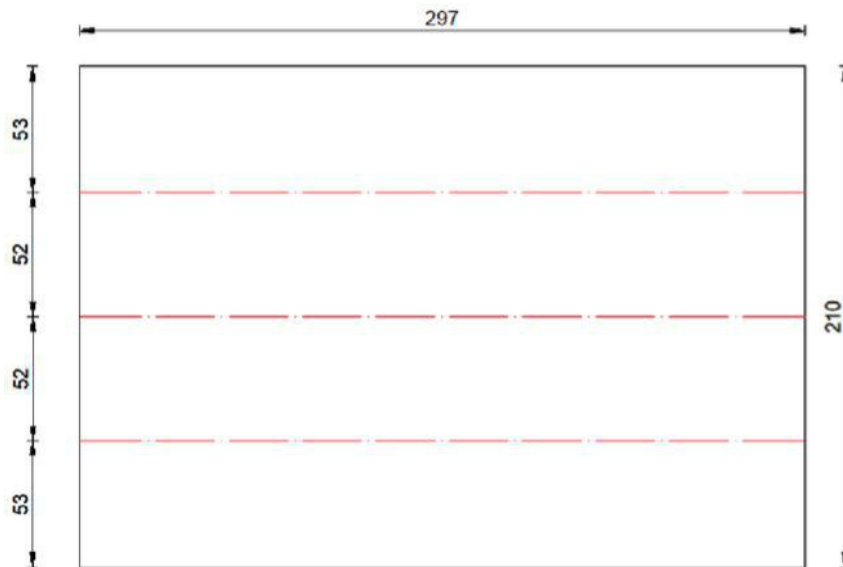
Result a triangular prism is formed with a 4 cm base (1.57 in) and two sides 6.5 cm (2.55 in) in length. The two sections making up the base should be glued together so that the supports is more stable.

Group III - Corrugated beam bridge (page 2)

A component of the corrugated beam bridge model:

- **a sheet of A4 technical paper**

Gently indent the card with a blunt knife along the long edge at 53 mm (2.08 in) and 52 mm (2.04 in) intervals as shown in the diagram below:



Execution:

After performing several tests, decide where to place the supports as well as arrange appropriate spacing between the supports.

Fold the sheet according to the instructions and then place it on the supports. Place weights, for example, a wooden locomotive and railcars, on top of the structure.

Group IV Truss bridge (page 1)



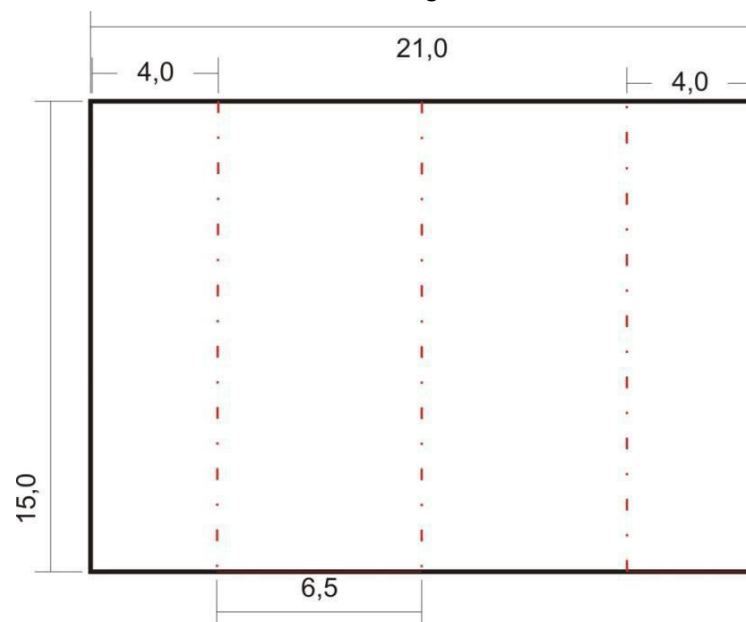
Materials:

1. two supports,
2. one template for the truss bridge.

Supports:

- a sheet of A4 technical paper (printed), a ruler, scissors, glue.

Each sheet should be bent along the dotted lines as shown in the diagram below:

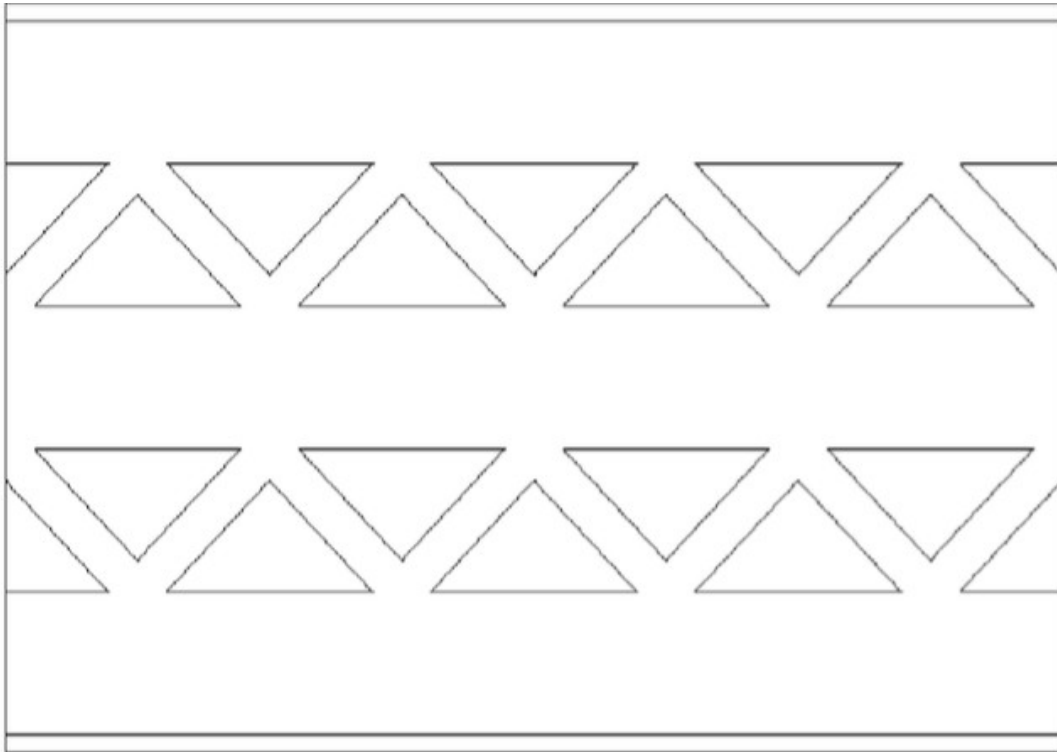


Result - a triangular prism is formed with a 4 cm base (1.57 in) and two sides 6.5 cm (2.55 in) in length. The two sections making up the base should be glued together so that the supports is more stable.

Group IV - Truss bridge (page 2)

Template for the truss bridge

The triangles constitute empty fields in the model. They can be cut out by tracing the edges with a sharp knife. After it has been cut out the model should be assembled and glued in the appropriate places. Below is a photograph of a finished model of a truss bridge.



Execution:

After performing several tests, decide where to place the supports and ensure appropriate spacing between the supports.

Arrange the glued model on the supports. The weights can be arranged on top of and inside the structure.