

LEARNING RESOURCE



PAPER BANGER

MATERIALS

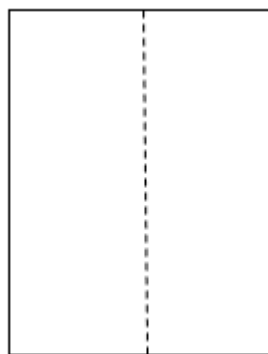
- Paper
- Ruler (optional)

PREPERATION

- None required

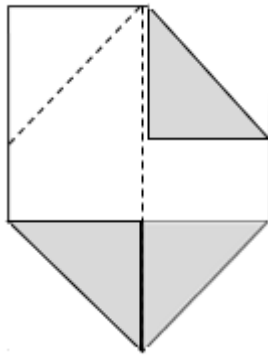
INSTRUCTIONS

1. Get a piece of A4 paper and fold in half, length ways, then unfold. You may wish to use a ruler to make sure your folds are straight.



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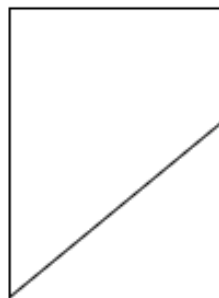
2. Fold all corners so that the top and bottom edges line up with the fold down the middle. Keep corners folded over.



3. Fold paper along original central fold, with corners on the inside and you should end up with a trapezium shape that looks like this:

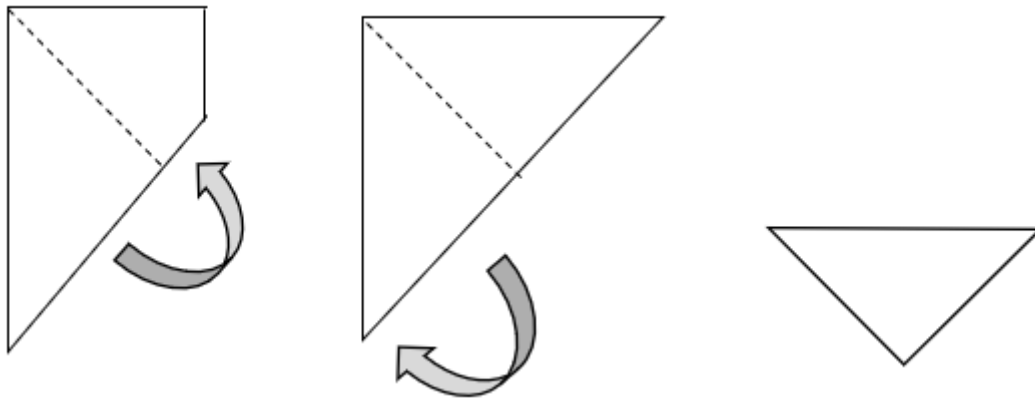


4. Now fold in half again, top to bottom and you should end up with this shape.



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5. Now fold the bottom point back 45 degrees from the corner, until the left edge lines up with the top edge. Repeat with both sides until you get a small triangle shape



6. Now grasp the triangle by the two loose corners and swing your arm down, simultaneously flicking your wrist.

EXTENSION

- Does the type of paper you use make any difference to the noise you make?
- Does the size of the paper you use effect the noise you make?
- Why not try making a few changes to see what happens?

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THE SCIENCE BEHIND THE BANG

The central flap of paper catches on the air and opens, acting like a pocket. This pocket traps air inside it and as the air is trapped it cannot move elsewhere, so the air molecules bang together, creating a sound wave that we hear as a bang.