

AVIATION ORIGAMI

How to Make a Paper Helicopter

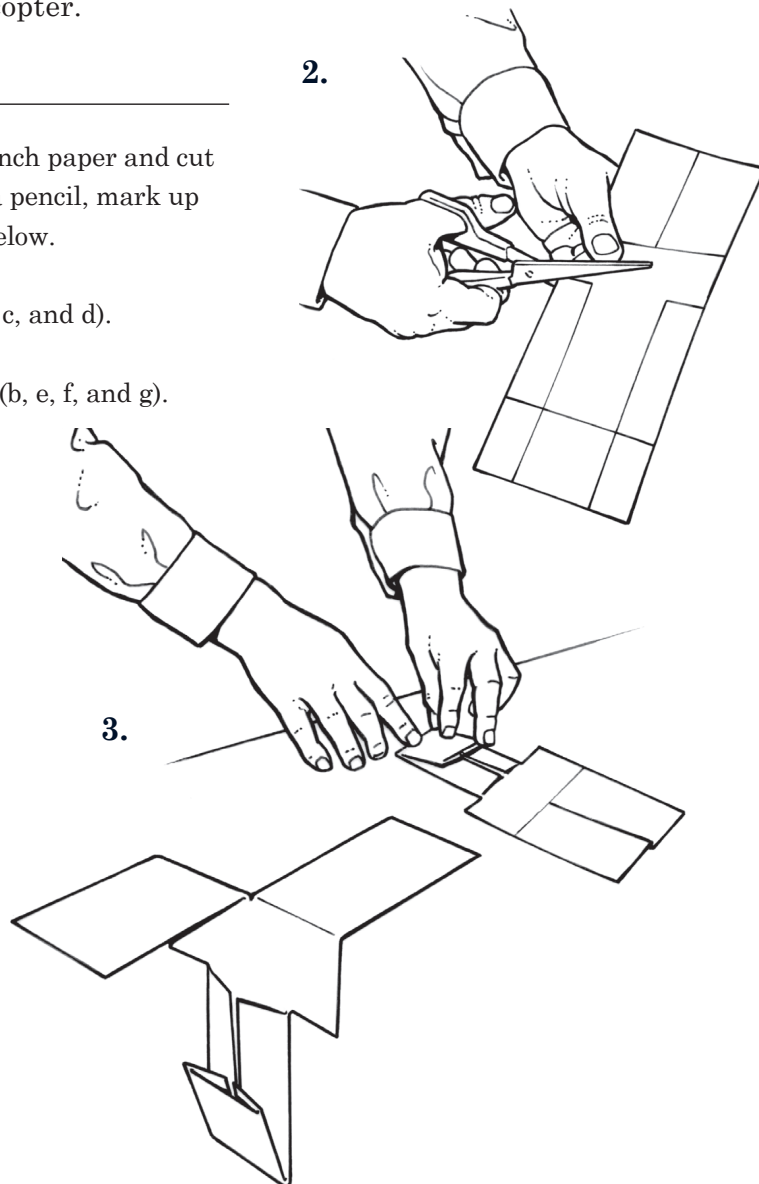
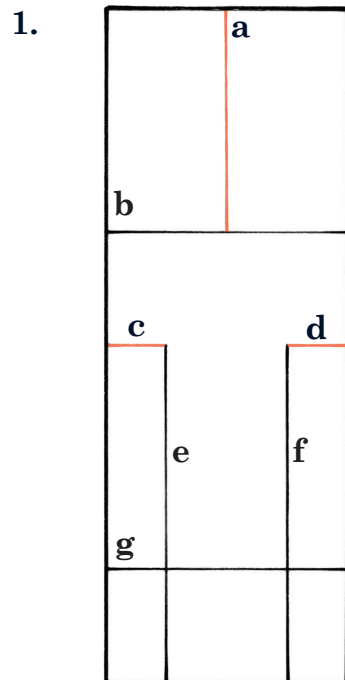
So, this one's part paper airplane, part science lesson, and it couldn't be simpler. Just follow the instructions below, then drop it out of an upstairs window (being careful if you really are young, rather than just young at heart, to make sure you only lean out of windows in the company of an adult). And as you watch it spin away, just remember that this is where it all began. The "bat" that inspired the Wright brothers' passion for flight was just a toy helicopter.

HOW TO DO IT

1. Take a piece of 8½-by-11-inch paper and cut it in half lengthwise. Using a pencil, mark up one half with the template below.

2. Cut along the red lines (a, c, and d).

3. Fold along the black lines (b, e, f, and g).



PAPER AIRPLANE

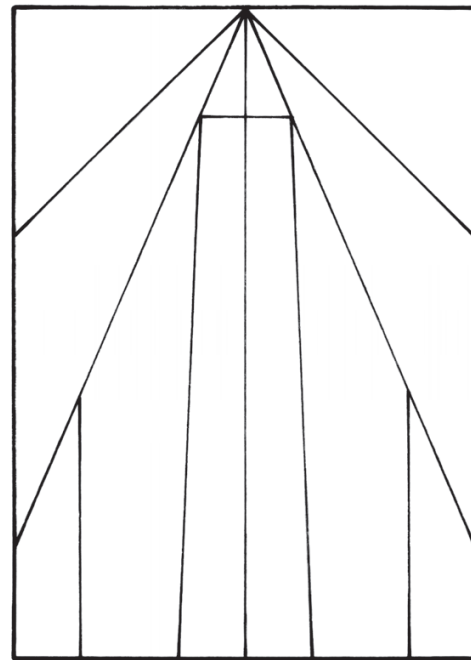
The Perfect Paper Plane

Just as making the perfect cake requires trial and error, so does creating the perfect paper plane. The design illustrated here is the result of many hours of patient research with my children, including a weekend spent testing subtly different variations, all flight-tested from one end of the hall to the other (my wife was away). The best of them were chosen for a more advanced test flight program from an upstairs bedroom window.

A snub-nosed design won the day, offering the required combination of speed, stability, and distance. The key is balance, and the heavy folds of paper in the nose, as inelegant as they might look next to your stereotypical needle-nosed plane, proved crucial. The upturned wingtips gave it a more rakish look, and helped make sure it went where we wanted it to. Then we added roundels, tailflashes, shark's mouth, and afterburners. The perfect paper plane.

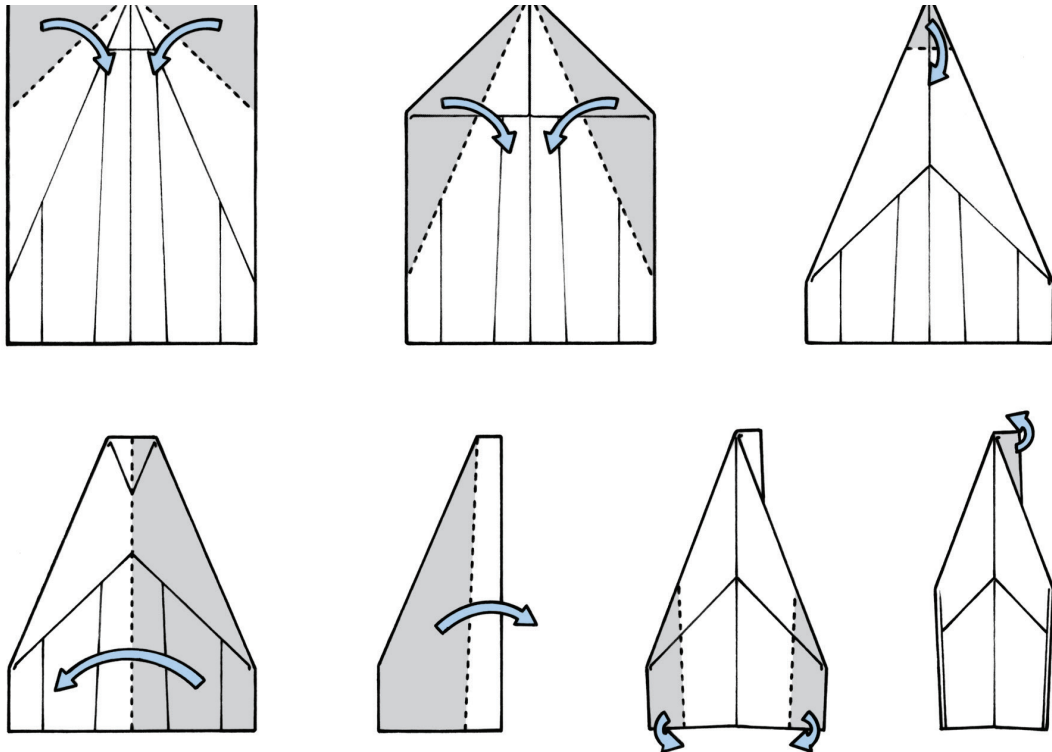
HOW TO DO IT

1. Take a piece of plain 8½-by-11-inch paper and, using a ruler and pencil, mark out the lines illustrated on the right. Now fold it according to the steps shown opposite. The shaded parts indicate the area(s) to be folded, while the dotted lines indicate the folds themselves.



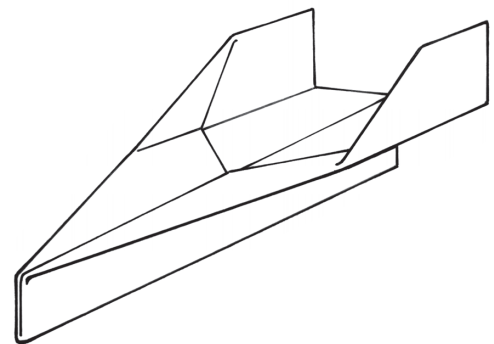
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2. Hopefully, you'll end up with something that looks a bit like the shape to the right:

3. Start chucking it around the house, but remember not to throw it too hard. Too much speed will generate too much lift, force the nose up, and stall your plane. As with so many things, soft hands will produce the more satisfying result.



4. Now it's time to decide who you want to be flying for and get the colored pencils out. The one below looks as if it should have been in the RAF in the late 1950s.

