



AUTHORIZED AMA  
STE(A)M PROGRAM



QUICK  
PROJECT

HALLOWEEN  
EDITION

PAPER  
BAT



AN OFFICIAL COMPETITION OF THE ACADEMY OF  
MODEL AERONAUTICS EDUCATION DEPARTMENT

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# SCIENCE STANDARDS

4-PS3-1 - Use evidence to construct an explanation relating the speed of an object to the energy of that object

# A brief history of paper airplanes

It is unknown when the first paper airplane was made; however, many scholars suspect that the Japanese art of paper folding, also known as origami, which closely followed the invention of paper in China in 500 BCE, inspired some of the first paper airplane designs.

Many of the early aviation pioneers utilized paper models in their pursuit of flight, including Leonardo da Vinci, Sir George Cayley (the first person to recognize and identify the four forces of flight), and the Wright brothers.

Bats actually have 5 “fingers” similar to humans in each wing, with a thin membrane connecting each one to move through the air. They control flight by opening and closing their fingers. Because of this, bats are the only mammal with the ability to fly!

## SUPPLIES

Standard 8.5”x11” paper

Markers, colored pencils, or crayons

Printer (if you would like to use the template)

## Paper Bat Build Instructions

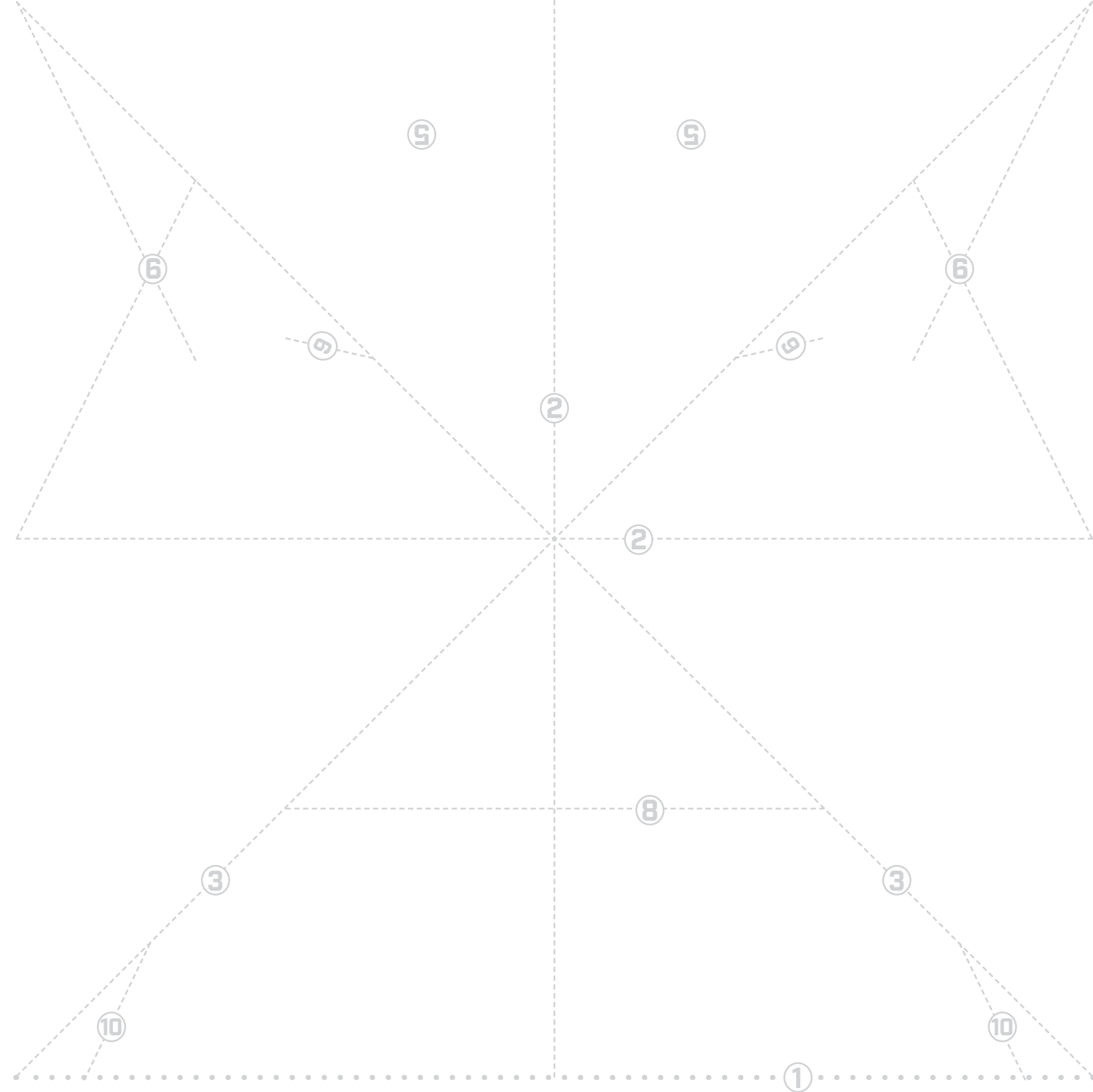
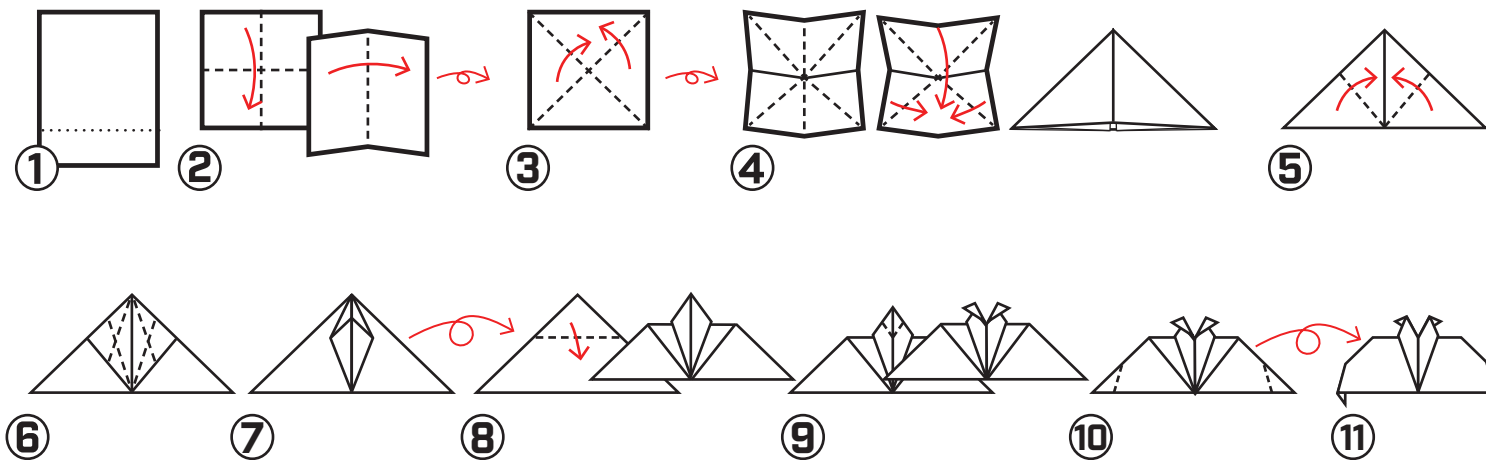
Originally designed by David Morgan, U.K.

Numbers on the template correspond to the instructions below!

(Disclaimer: Printer may shift template)

1. Create a square piece of paper by cutting on the dotted line.
2. Fold the paper in half diagonally, crease, and unfold. Repeat horizontally. Flip the paper over.
3. Fold the paper in half vertically, crease, and unfold. Repeat horizontally. Flip the paper over.

4. Collapse the diagonal and horizontal creases. The paper should form a multilayered triangle.
5. Fold the two lower corners of the triangle’s upper layer up to meet the top corner.
6. There is now a small triangle on each side of the center crease. Take the lower edges of these triangles and fold them to line up along the center crease, crease, and unfold. Repeat for the upper edges.
7. Collapse the creases you just made so that the outer corner of the triangles lay along the center crease pointing toward the top corner. Flip the whole paper over.
8. Fold the top corner down to meet the center of the bottom edge.
9. There should be two corners pointing toward where the top corner was previously. Fold them so they point outward, away from each other.
10. Fold the bottom corners of the paper to point down past the bottom edge of the paper.
11. Turn the whole paper over. The batplane is complete.
12. Adjust the creases so that the batplane forms a shallow “M” shape when viewed from the rear.
13. Place your index finger on top of the center crease, supporting the bottom of the batplane with your thumb and other fingers. Smoothly toss the batplane forward with a gentle flicking motion.



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