TAKE&MAKE

GRADES K-7   DIY ART PROJECTS TO GO!

Take and Make: Paper Planes in Flight

Lesson Objective: Learning about how artists use play in their artwork.

Artist, **Kyle Kelsey**, was challenged to create an art exhibit about "play" in just 4 weeks! He used painting, video projection, sound, and most importantly, paper planes to create a fun space for playing at The Bascom: A center for the Visual Arts in Highlands, NC. Kyle Kelsey believes that flying paper planes is a great way to play because everyone can do it, we can fly them together, and all you need is paper!

Kyle Kelsey and The Bascom invite everyone to visit his exhibit at The Bascom and fly a paper plane in his newly created space for play in the Thompson Gallery.

You can read more about Kyle Kelsey's thoughts about planes and play in this Take and Make's Artist Highlight.

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A little about the history of paper folding and paper planes...

To fold paper, you first need...paper! Did you know that paper was invented in China around 105 A.D.? That's a looong time ago. And, it was a luxury item that only a few people had. Paper folding was used in ancient times for ceremonial or religious purposes, but by the 1600's people in Japan were using paper folding for recreation, for fun, and it became an art form. More paper became available to everyone, and written folding instructions like the ones below began to show up. Interestingly, paper airplanes were likely invented around this same time; hundreds of years before the Wright Brothers ever flew near Kitty Hawk, North Carolina!

Learn more Paper Airplanes!

RESOURCES
WEBSITES
*   thebascom.org/exhibitions/current-exhibitions: learn more about Kyle, watch videos of him working on his exhibit, and more!
*   Paper Airplane Designs: www.foldnfly.com

BOOKS
*   *Paper Planes by Steve Worland*
*   *Super Simple Paper Airplanes; Step-by-step instructions to make planes that really fly from a tri-plane to a jet fighter by Nick Robinson*

TIME TO CREATE TWO DIFFERENT PAPER AIRPLANES!

You will need:
*   Plain white paper (or colored paper!)
*   Markers (optional)

We are going to make two different types of paper airplanes and compare their flight characteristics.

FIRST AIRPLANE: THE HARRIER

Step 1: Fold in half lengthwise and then unfold. This center crease is just a guide for future folds.
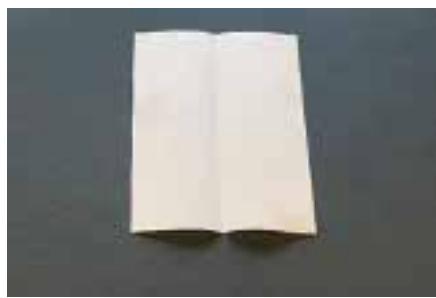
Step 2: Fold the top corners in so they meet at the center crease.

Step 3: Fold the entire top down so that it resembles an envelope. Make sure you leave a half inch or so at the bottom — you don't want the top point to evenly meet the bottom edge.

Step 4: Fold the top corners in so they meet at the middle. There should be a small triangle tail hanging out beneath these folds.

Step 6: Fold in half, but make you sure you fold it outwards on itself, not inwards. You want the previous triangular fold to be visible on the bottom edge.

Step 5: Fold that small triangle up to hold those previous folds in place.

Step 7: Fold the wing down so its edge meets the bottom edge of the airplane. Repeat on the other side.

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SECOND AIRPLANE: THE BULLDOG DART

Step 1: First you fold the paper in half lengthwise, and then unfold. This initial crease is simply a guideline for the next folds.
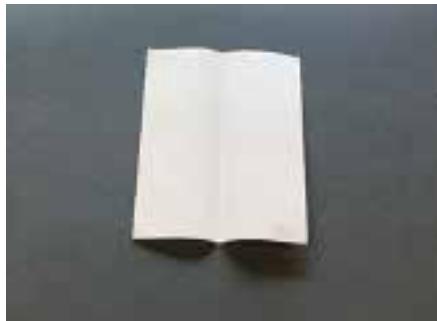
Step 2: Fold the top two corners down so they meet the center crease. This is the classic way to start a paper airplane, and probably what you first learned as a kid.
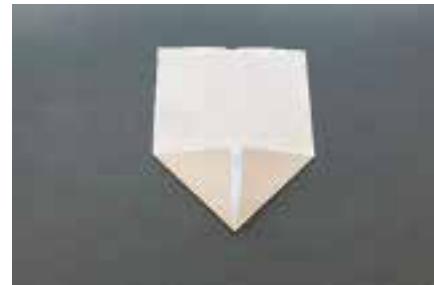
Step 3: Flip the plane over, and fold the corners in again to the center crease. You want the diagonal line coming off the top of the plane (on the left side) to be lined up with the middle (like on the right side).

Step 4: Fold the top point down so that the tip meets the bottom of where the previous folds come together.

Step 5: Step 5: Fold the entire plane in half, in on itself. This creates the snub nose, which gives the Bulldog Dart its name.

Step 6: Fold the wings down so that you're making a straight line across from the top of the snub nose.
Repeat on the other side.

FOLLOW-UP QUESTIONS:

- What are the differences between each airplane's design? Similarities?
- Which airplane flew the farthest?
- Did you notice any interesting flight characteristics between the airplanes, and what were they?
- Was one airplane faster than the other? Why?

The Bascom Artist Highlight: Kyle Kelsey

"When I think of play, paper planes immediately come to mind. No object symbolizes the imagination of a child better in my opinion. In my childhood, the act of folding and flying paper planes was one filled with wonder. The process of creating an object for flight and observing its successful function was captivating. I did not simply throw a paper plane to see how far it would go, or where it would land. I was piloting the plane. I became the plane!"

-Kyle Kelsey
2020 – 2021 Winter Resident Artist

Kyle Kelsey is an artist living and working in Cullowhee, NC. He is currently a graduate student at Western Carolina University. To learn more about Kyle's work, **visit: www.kylekelseyart.com**

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