

# STEAM in the Classroom

SCIENCE-TECHNOLOGY-ENGINEERING-AGRICULTURE-ART-MATH

## RING WING GLIDER

**For this challenge/activity you will need:**

- Plain piece of paper or Ring Wing Glider Template (at end of instructions)
- Transparent Tape (optional)
- Ruler or tape measurer
- Additional types and sizes of paper for experimentation

### **Introduction:**

For the month of February, we will be exploring contributions to STEM by historical African-American figures in honor of Black History Month. Before participating in this week's challenge, learn more about [Bessie Coleman](#) and how she became the first black woman to become a pilot.

After watching the video about Coleman, try to make your own Ring Wing Glider by following the instructions on the next page. What did you notice about the flight of your aircraft? Does it repeat the pattern each time you fly it? Make one change to your aircraft to enable a change in flight, then fly your aircraft several times. How did the flight characteristics change with your wing change?

Information Source: <https://www.jpl.nasa.gov/edu/teach/activity/ring-wing-glider/>  
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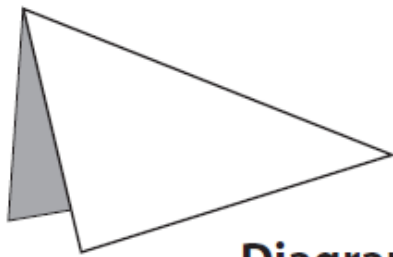
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Early requests are strongly encouraged to allow sufficient time for meeting your access needs.

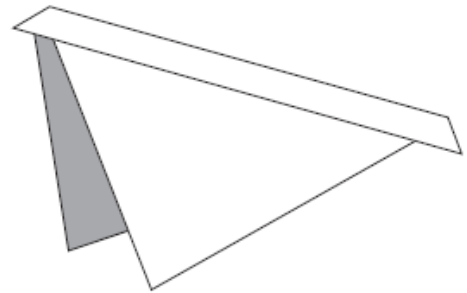
# RING WING GLIDER

## Directions:

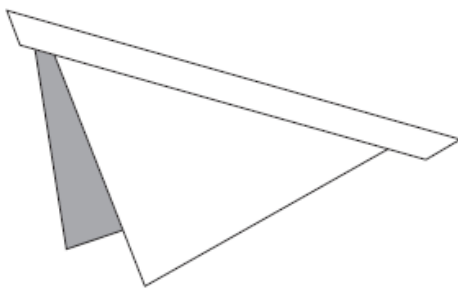
1. Fold a piece of 8.5- x 11-inch paper diagonally as shown in diagram 1.
2. Make a 1/2-inch fold along the previously folded edge as shown in diagram 2.
3. Make a second 1/2-inch fold as shown in diagram 3.
4. Curl the ends of the paper to make a ring and tuck one end into the fold of the other as shown in diagram 4.
5. Gently grasp the “V” between the two “crown points” with your thumb and index finger.
6. Toss the glider lightly forward. Note: The folds in the paper make the airplane’s front end heavy and the back end light. Curling the ends to make a ring changes the shape of the wing and improves the wing’s flight performance.



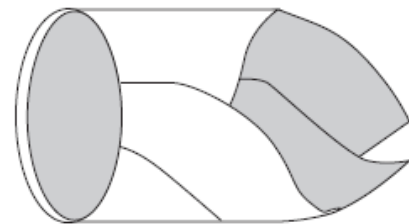
**Diagram 1**



**Diagram 2**



**Diagram 3**



**Diagram 4**



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R I N G W I N G

B

A

C

FIRST FOLD

SECOND FOLD

FIRST FOLD

SECOND FOLD

FIRST FOLD

SECOND FOLD

FIRST FOLD

FIRST FOLD

SECOND FOLD