



ACTIVITY 5: PAPER BIRDS

30 MIN | DESIGN LAB OR OUTSIDE

You can do this activity by yourself or with a friend or family member to make a pair.



Different wing shapes help make different kinds of flight possible. Think about a bird you have seen. What was the shape of its wings? How might you describe the way it flew?

- If you are doing this with a partner, talk about your answers.
- If you are doing this on your own, write your answers here.

Watch [What Makes Owls So Quiet and So Deadly?](#) (4 min.) by using this link sciclub.link/owlstealth or the QR code to see a comparison of owl and falcon flight.

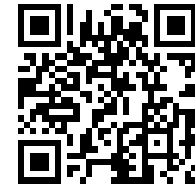


Share Out: What did you notice about the flight and hunting style of the two birds?

What do you need?

- Rubber bands
- Scissors
- Markers

[What Makes Owls So Quiet and So Deadly?](#)



This activity will investigate how wing shapes can change flight.

1. Remove the full page for both Paper Bird A and Paper Bird B. It is double sided. Build the paper birds by folding along the dotted lines.
 - For Paper Bird A, start at fold number 1 and fold in order to number 12.
 - For Paper Bird B, start at fold number 1 and fold in order to number 8.
 - When you're done, the solid lines should be visible on both Paper Birds.

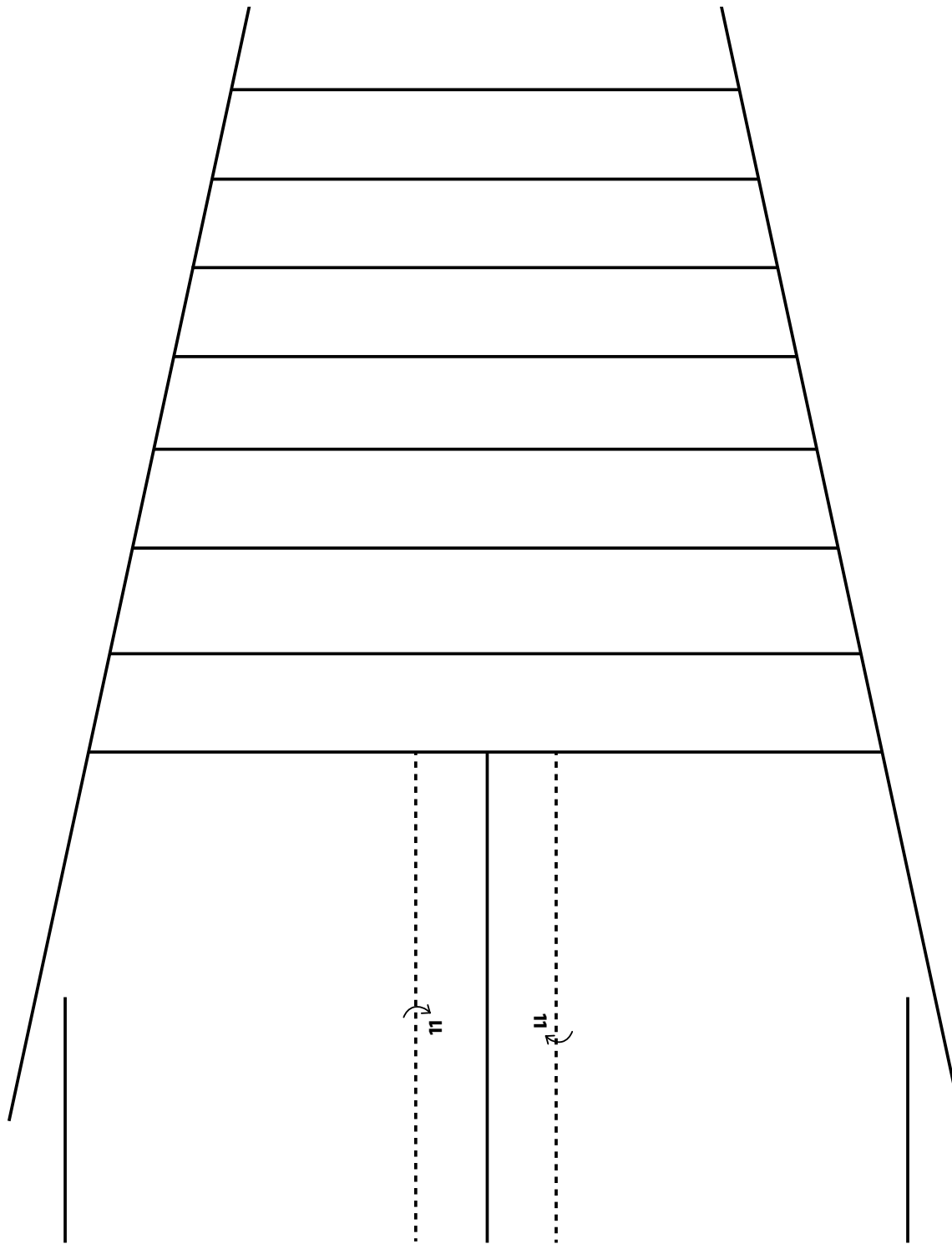
Watch [Paper Bird Folding Demonstration](#) (1 min.) by using this link sciclub.link/Fold-Paper-Birds.

If doing this with a partner, you will make Paper Bird A and your partner will make Paper Bird B.

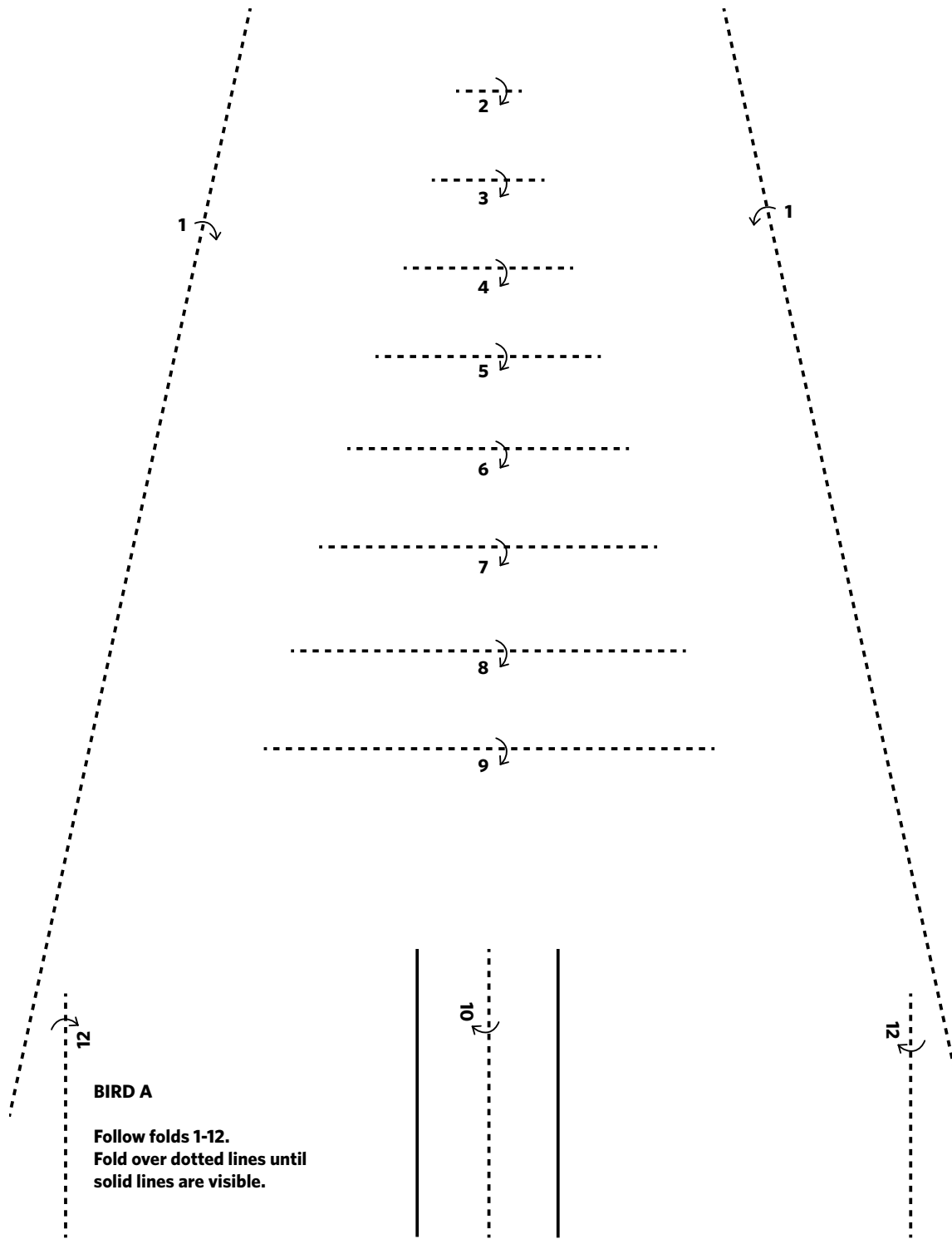
1. Find an open space indoors or head outside. First, you need to learn how to launch the birds. Since paper birds can't flap their wings as real birds do, you can give them a boost with rubber bands. Poke a hole in the bottom edge about one inch from the nose. The nose is the front tip of the paper bird. Loop a rubber band through the hole (see photo on the right).
2. Now it is time to practice. Launch the paper birds and compare distance, speed, etc. Practice launching the birds and make improvements if necessary. For example, you might curl the wings by turning up the edges, change the shape of the nose by folding it again, or add paper clips to the body or front for weight. Use your creativity to improve your design.
3. After the practice round, it is time to compare the two Paper Birds. On your own, you will fly each Paper Bird separately and keep track of the results. Fly each Paper Bird for 4 minutes and record your data in the Paper Birds table.
 - If you are doing this with a partner, this is now the competition round. Each person will fly their own Paper Bird and compete for 4 minutes. Remember to record your data in the Paper Birds table.



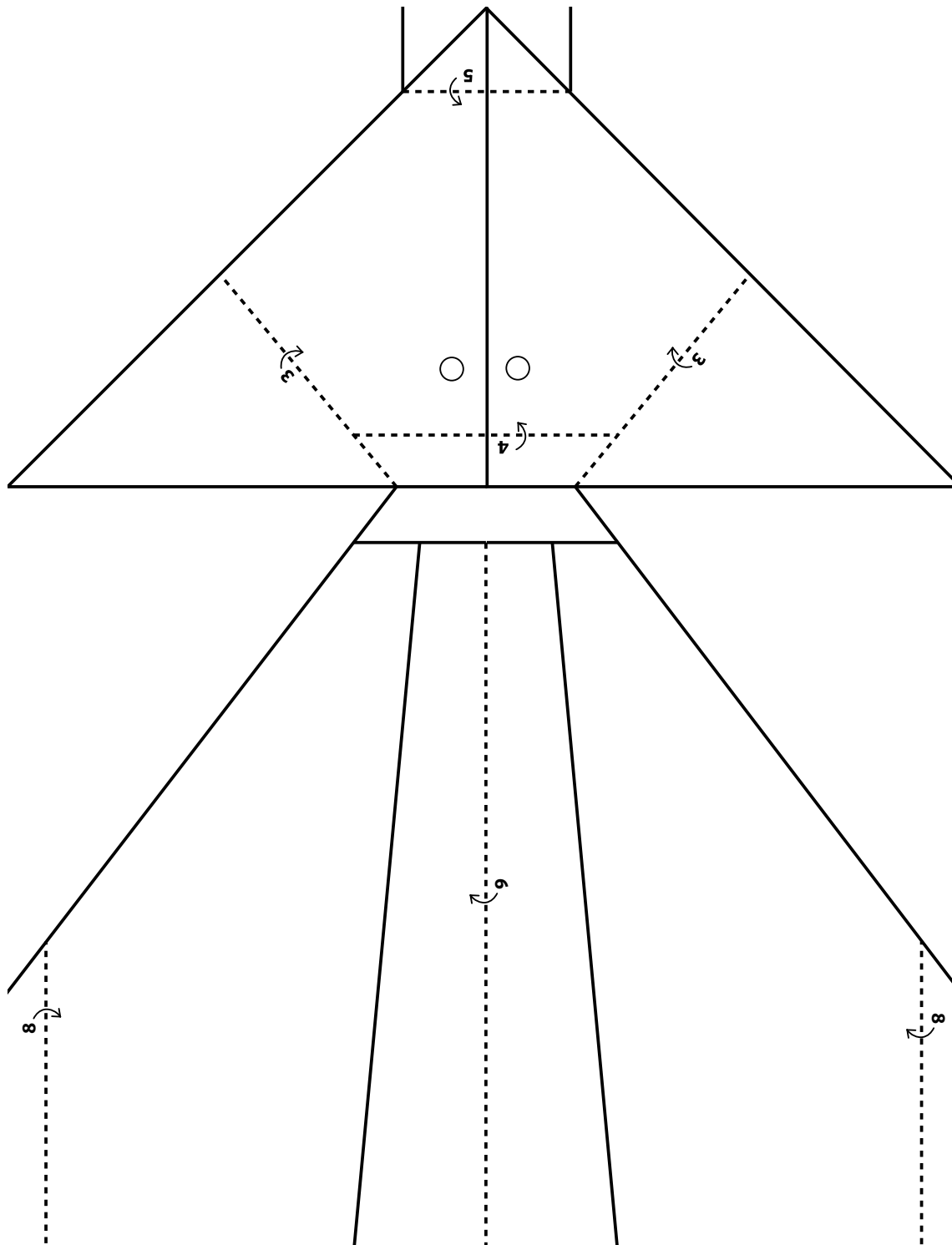
Paper Bird
A



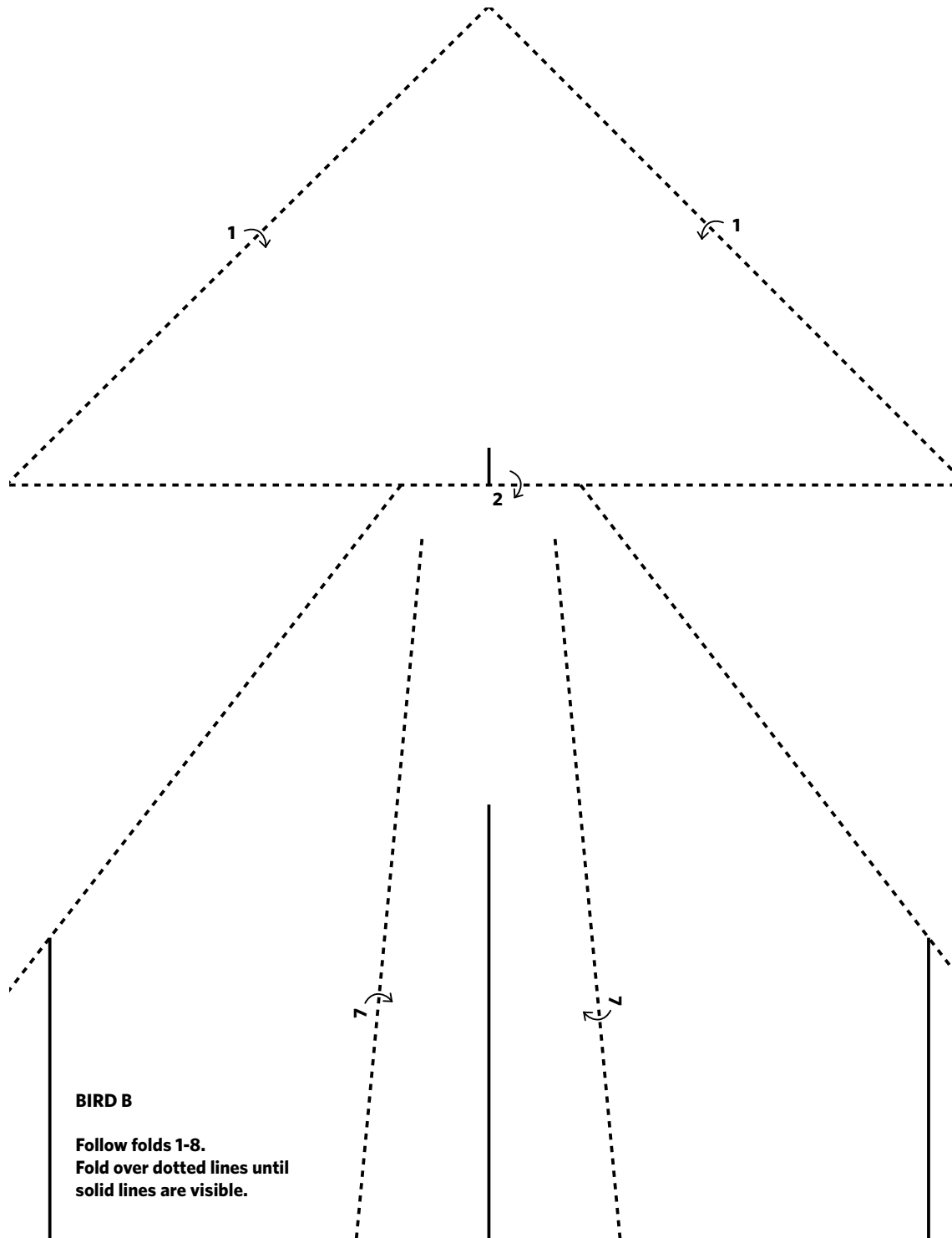
Paper Bird A



Paper Bird
B



Paper Bird
B



BIRD B

**Follow folds 1-8.
Fold over dotted lines until
solid lines are visible.**

Competition Question	First Try	Second Try	Third Try	Winner
Which paper bird flies a longer distance?				
Which paper bird flies faster?				
Which paper bird flies in a straight line?				
Which paper bird makes quicker turns?				



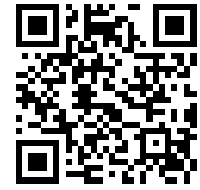
Share Out: On your own, reflect on the results. What strategies did you use to make the paper birds fly better? Which paper bird is more similar to a falcon or an owl? Record your findings here.

- If you did the activity with a partner, debrief the results of the competition as a pair. Share strategies you used to make the paper birds fly better. Finally, discuss which paper bird is more similar to a falcon or owl.

Explore More: Watch [Science Today: Secrets of Flight](https://www.science.org/contents/video/secretsof-flight) (5 min.) by using this link sciclub.link/birdsa8em or the QR code to learn more about flight in nature.

Call to Action: Human-made technology like plane wings and helicopter blades are directly inspired by wings in nature. Try building other flying models with friends and family, such as this ring wing glider found at this link sciclub.link/birdsa8cta or the QR code.

Explore More:
[Science Today: Secrets of Flight](https://www.science.org/contents/video/secretsof-flight)



Call to Action:
[Ring Wing Glider](https://sciclub.link/birdsa8cta)

