KINGFISHER CHALLENGE



Materials:

- Pen or pencil
- At least 3 pieces of paper
- Markers and other coloring utensils
- Scissors
- Stable chair or stool



Instructions:

Kingfishers are aerodynamic and streamlined. Their bodies travel smoothly through air and water. When they spot a fish, they must act quickly before the fish escapes.

In this challenge, you will explore the aerodynamics of a kingfisher's dive using paper airplanes.

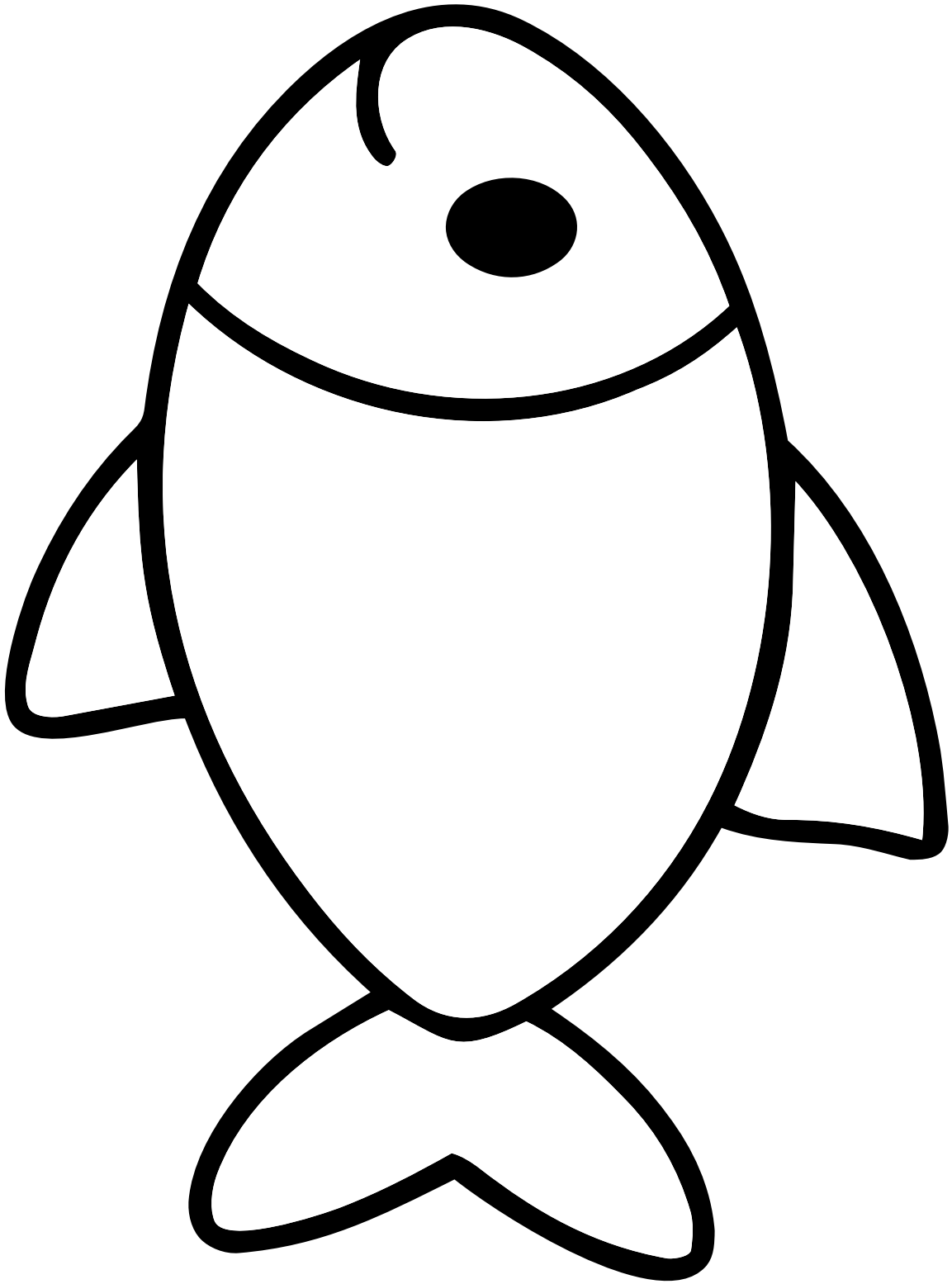
You will design at least 3 different paper airplanes that represent kingfishers. Each design must have a different component. For example, wing width, nose length, or plane height. Keep the shape of a kingfisher's body and wings in mind as you create your designs.

Color and cut out the fish on page 2 and place it on the floor. This will be your target. Place a stable chair or stool ~5 feet from the fish. With a friend or grown-up's help, carefully stand on the chair and throw your paper airplanes at the fish.

The plane that lands closest to the fish wins. Use markers and other coloring utensils to design your winning plane as a kingfisher.

Answer the questions on pages 3 and 4 to complete the challenge.

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1. How did you use the shape of a kingfisher's body and wings to help you create your plane designs?

2. How is your winning plane different than your losing plane?

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3. Why do you think your winning design won? What parts of the plane helped it with speed and accuracy?

4. Could you make any changes to your design to make it even more similar to the aerodynamic shape of a kingfisher?