



## Activity: Spinning through the Air

Change a flat piece of paper into a spinning helicopter, fish, and octopus. Then experiment and try out different iterations to see how certain changes affect your creations.

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### Make a Paper Helicopter

- ▶ Cut on the three solid black lines, where the scissors image is shown.
- ▶ Fold on the dotted lines:
  - ▶ Fold lines 1 and 2 to make a long bottom
  - ▶ Fold up at line 3 to add a tail
  - ▶ Fold the top pieces in different directions at lines 4 and 5 to make wings
- ▶ Test it and make adjustments as needed.

Make a few more helicopters to experiment with. What is one thing you want to change about each helicopter? Its wings? Tail? Weight? Size? Change it and test it out.

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### Make a Spinning Paper Fish

- ▶ Cut on the two solid black lines, where the scissors image is shown.
- ▶ Curl the paper around and slide the two cuts together.
- ▶ Toss and spin!

Experiment with larger and smaller pieces of paper.

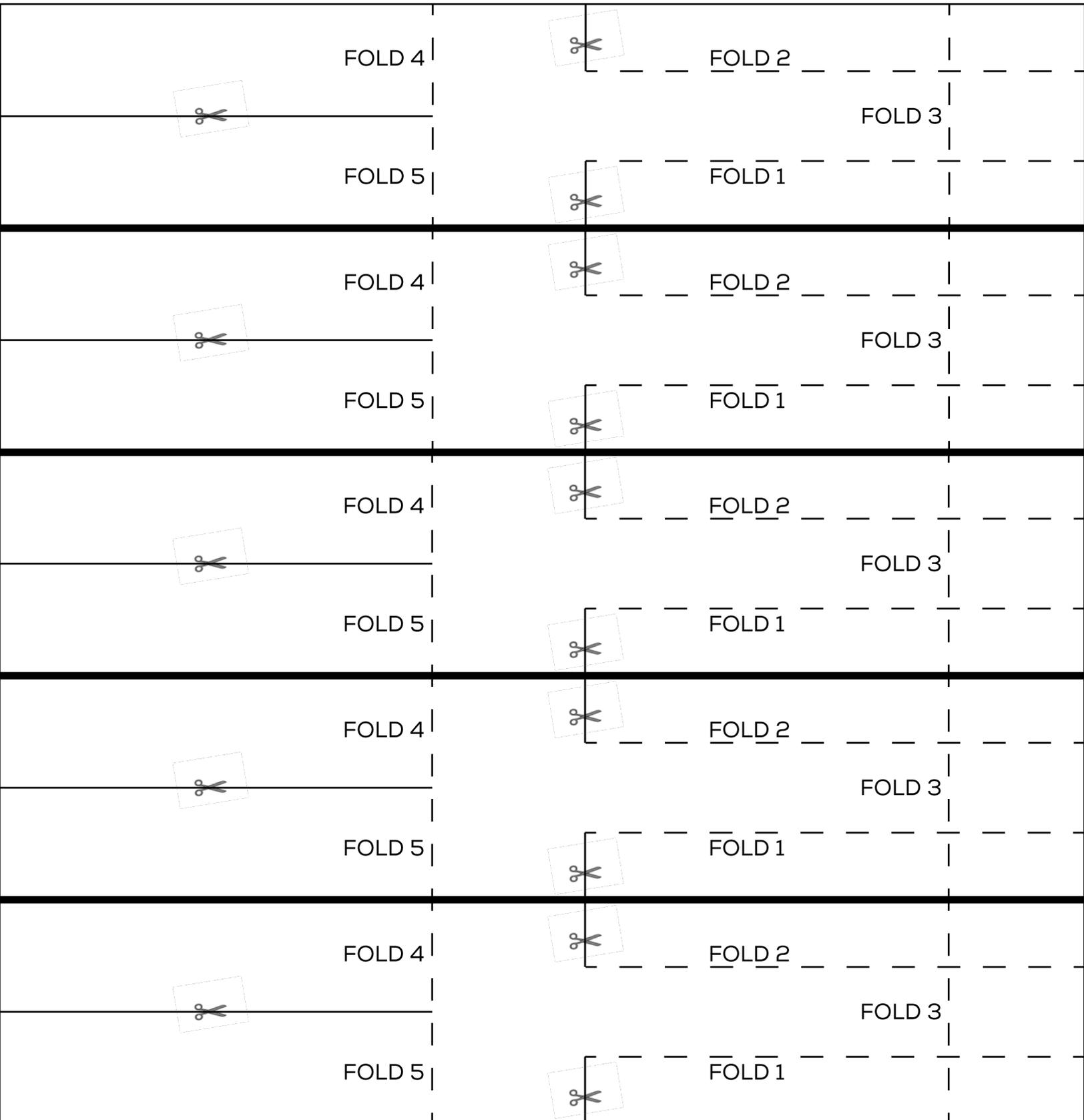
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### Make a Spinning Paper Octopus

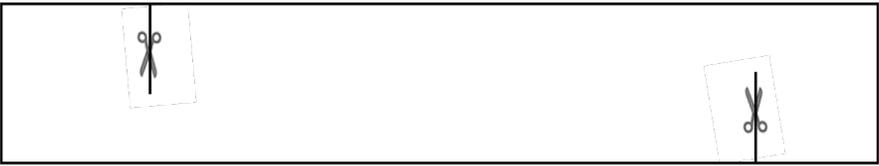
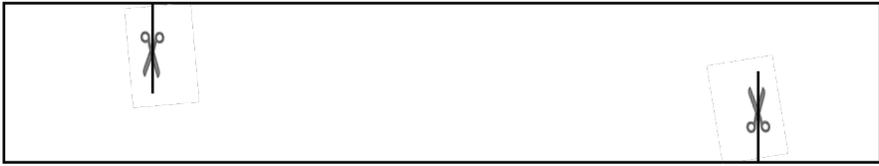
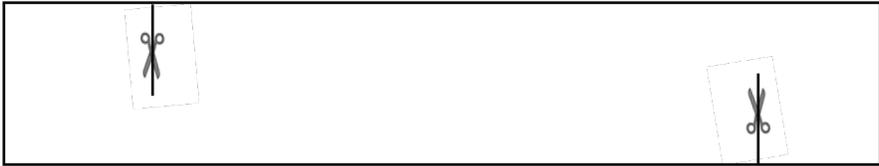
- ▶ Make a strong fold across the top dark line.
- ▶ Cut off the section that says "cut this part away."
- ▶ Cut each of the long lines until they end exactly at the fold you made.
- ▶ Run your finger along the fold to soften the paper and watch the legs pop out.
- ▶ Tape the two ends of the fold together to make a circle with legs. It's an octopus!
- ▶ Test your octopus by tossing or dropping it through the air. Which way does it spin the smoothest?

Experiment with your octopus. How does changing the length of the legs or adding weight change how your octopus moves in the air?

# Paper Helicopter Template



# Spinning Paper Fish Template



# Paper Octopus Template

