

Make a Straw Rocket



Create a paper rocket that can be launched from a soda straw – then, modify the design to make the rocket fly farther!

Materials Provided:

- Soda straw
(plastic or reusable)
- Rocket template

Materials Needed:

- Pencil
- Scissors
- Tape
- Yard stick or measuring tape

1. Cut out and shape the rocket body

Cut out the rectangle. This will be the body tube of the rocket. Wrap the rectangle around a pencil length-wise and tape the rectangle so that it forms a tube. Tape edge down.

2. Cut out and attach the fins

Cut out the two fin units. Align the bottom of the rectangle that extends between the fins with the end of the rocket body, and tape the fin to the body tube. Do the same thing for the other fin on the opposite side, making a “fin sandwich.”

3. Bend the fins

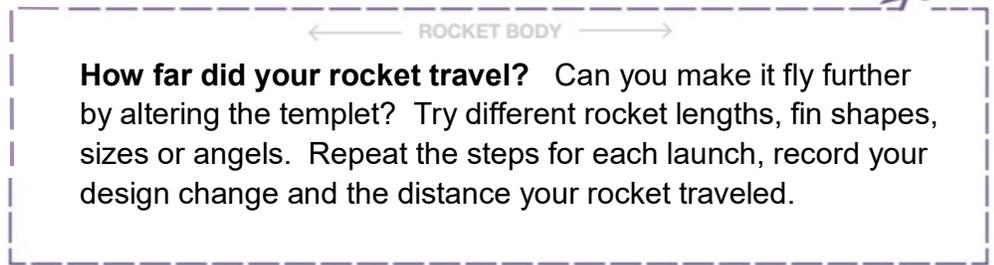
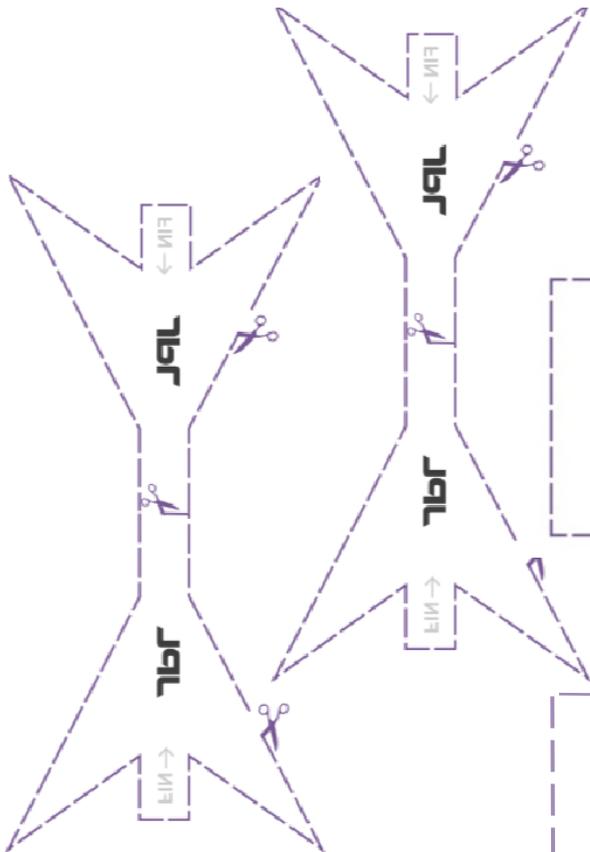
Bend the fins on each fin unit 90 degrees so that they are each at a right angle to each other. When you look along the back of the rocket, the fins should form a “+” mark.

4. Make and measure the nose cone

Twist the top of the body tube into a nose cone around the sharpened end of your pencil. Measure your nose cone from its base to its tip and record the length on the data log and on the rocket itself.

5. Prepare to launch!

Remove the pencil and replace it with a soda straw. Be sure your launch area is clear of people and hazards. Then, blow into the straw to launch your rocket! Record the distance the rocket travels.



This activity was provided by Jet Propulsion Laboratory. For more activities visit [jpl.nasa.gov/edu/learn](https://www.jpl.nasa.gov/edu/learn).

Make one change each time so you will know which design was the best! For additional templets and a log to record your results go to <https://extension.wsu.edu/kitsap/4-h/>