MAKE A STRAW ROCKET

HomeScou*ing

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

MATERIALS

- Pencil
- Scissors
- Tape
- Soda straw *(plastic or reusable)*
- Meter stick / Yard Stick / Measuring Tape
- Rocket template and data log

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.

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.
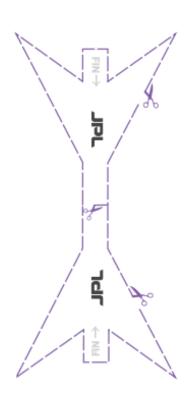
4. Make and measure the nose cone

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 on your data log.

FIN →

JPL

JPL

FIN →

← ROCKET BODY →

STRAW ROCKET DATA LOG

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Record your findings and improve your design! Make new rockets by altering the template. Try different rocket lengths, fin shapes or fin angles. Repeat the steps above for every launch, then record each design change and rocket-flight distance in your data log.

Length of Nose Cone	Distance Traveled			Notes
	Trial 1	Trial 2	Trial 3	