Wizards of Wright

Lesson: Straw Rockets – Student Directions

1. **Make the Nosecone**

Knead the clay to soften it, and carefully shape the clay.

You need a piece of clay around the size of a grape (3-5 oz.) to begin with. Weigh the clay using the digital scale, and record it on your data sheet.

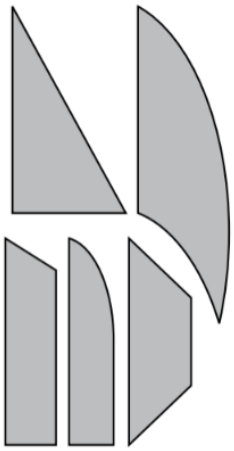
Press clay onto straw and shape into a nosecone shape.
- Let's all make them "pointed" for the first test (like the pencil erasers you can add to the end of your pencil.)
- We can try other shapes and weights later as different variables.

Make sure that the clay is solidly attached to the straw and makes a good seal. Some of the clay can go into the straw, this will help it stay on. The outside edge between the straw and the nose cone should be sealed carefully with the clay.

2. **Make the Fins**

Draw your fin shape on an index card. You can use the template included. Rockets normally have 2-4 per fins.

- Let's all make 3 small triangular fins first.
- We can try other shapes later as different variables.
- We can try different numbers later as variables too.



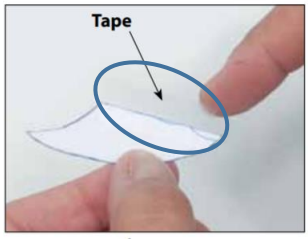
Fin Design

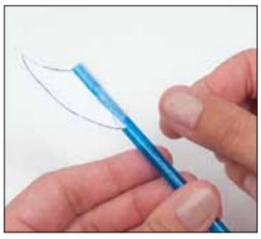
Using scissors, cut out the fins.

3. Tape fins onto the bottom of the rocket (opposite from the nosecone), taking care to space them evenly around the rocket's circumference.

Use a piece of tape the length of the edge of the fin to connect it to the rocket body. Place the tape on the edge of one fin. Repeat this for all the fins.

Attach the fins so they are evenly spaced around the straw. Do not have any excess tape hanging off the rocket.





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