Wizards of Wright

Lesson: Straw Rockets – More Variables
Student Directions

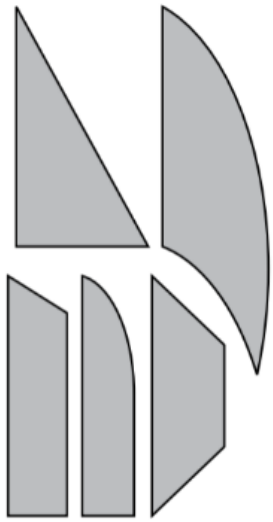
Here's a quick reminder how to prepare the nosecones and fins.

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

Press clay onto straw and shape into a nosecone shape.

Make sure that the clay is solidly attached to the straw and makes a good seal. Suggest to students that some of the clay 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. Draw your fin shape on an index card. You can use the template. Rockets normally have 2-4 per fins. Using scissors, cut out the fins.

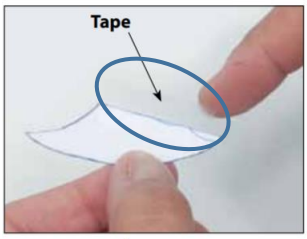


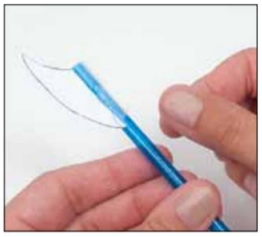
Fin Design

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.





When launching:
1. Make sure launchers are on flat, solid surfaces.
2. Place the straw rocket on the **launch tube**.
3. Adjust the angle of the **launch tube** to the desired degree mark.
4. Raise the **launch rod** to the desired height.
5. To launch, release the **launch rod** so that it falls to the bottom of the cylinder.
   - When rockets are launched, simply release or drop the launch rod.
   - **Avoid forcing the rod into the cylinder**.

information credited to: https://engineering.purdue.edu/PurdueSpaceDay/education/Straw%20Rockets.pdf; https://asset.pitsco.com/sharedimages/resources/userguide/straw_rocket_cp_ug_35784.pdf