

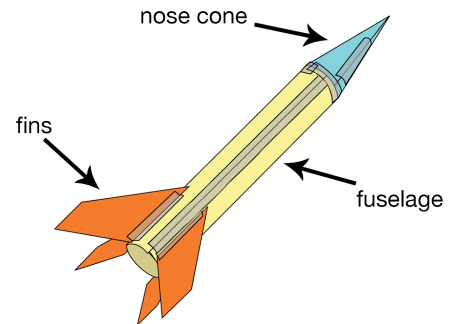
PAPER ROCKETS

OBJECTIVE

Build a paper rocket to use with a stomp launcher.

MATERIALS

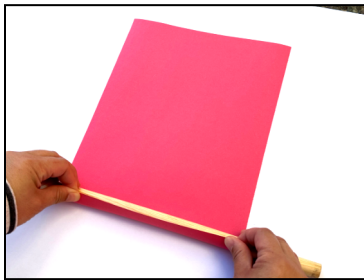
- construction paper (body/fuselage; x1 per student)
- template for nose cone & fins (1 page per student)
- scissors (to share)
- tape (to share)
- wooden dowel (to share)
- launcher (to share)



INSTRUCTIONS

NOTE: This activity can be done individually or in pairs (recommended with time restrictions).

Step 1: Build body or “fuselage”



#1: Put the dowel on one edge of the construction paper, and start rolling. Make sure that the body can snug on the dowel – not too tight, not too loose.

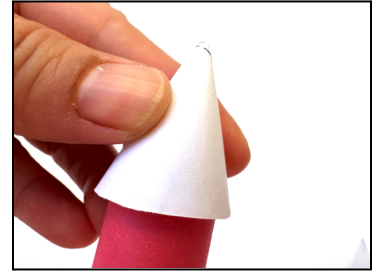
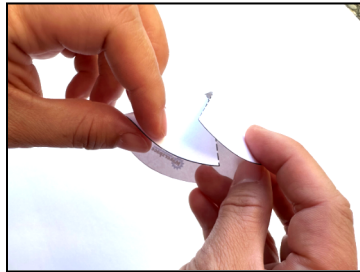
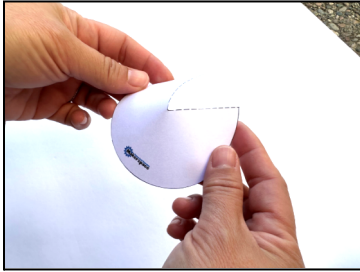


#2: While still on the dowel, use enough tape to completely seal the seam of the body.

TIP: Ask another student to hold down the rolled paper while you put a small tape in the middle to prevent it from unrolling. Then on your own, seal the seam completely with tape.

#3: Before sliding it out of the dowel, write the student's name(s). Slide the body from the dowel.

Step 2: Nose



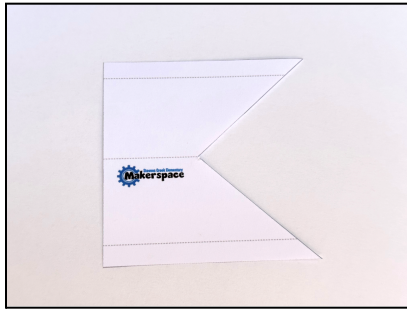
#1: Using the template, cut the $\frac{3}{4}$ circle to make the nose.

#2: Roll the circle into a cone shape until the shape is almost the same size as the body width.

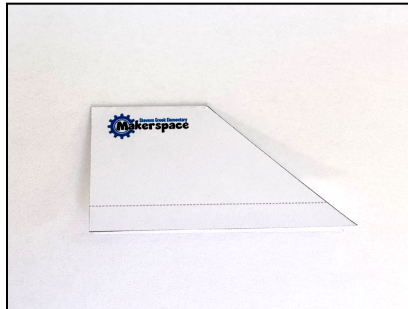


#3: Tape the nose cone on the body/fuselage, completely sealing the seam.

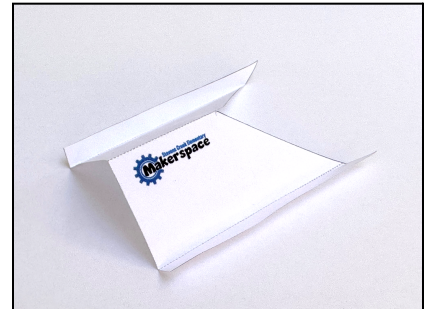
Step 4: Fins



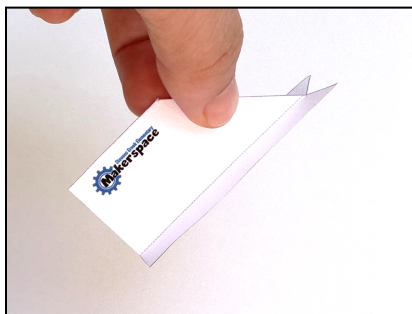
#1: Cut the fins from the template.



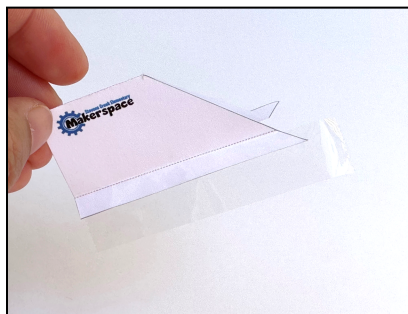
#2: Fold the fin in half (middle dotted line).



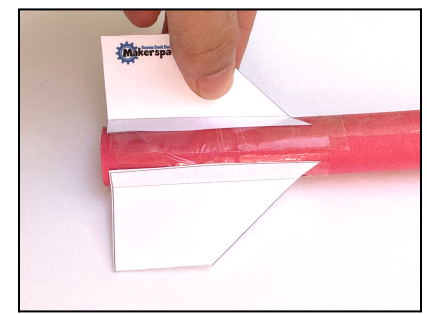
Step 3: Fold the edges upward (outer dotted line). These will be your mounting edges.



#4: Fold the fin firmly in the middle.



#5: Put tape on the mounting edges.



#6: Place the fin on the tail end of the body and press firmly.



#7: Congrats! You now have a paper rocket!

Safety rules

1. Designate an area as the launch pad and landing area.
2. Students must stand behind the launcher when not launching.
3. When inserting rockets into the launcher, the student must be behind the launcher and make sure the pole is pointing away.
4. Before launching rockets, the landing area must be clear.
5. Only the students who are retrieving rockets may be in the landing area (unless another person is required to measure distance).

