

## Making Paper Rockets

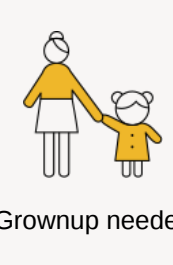
Stem Activities



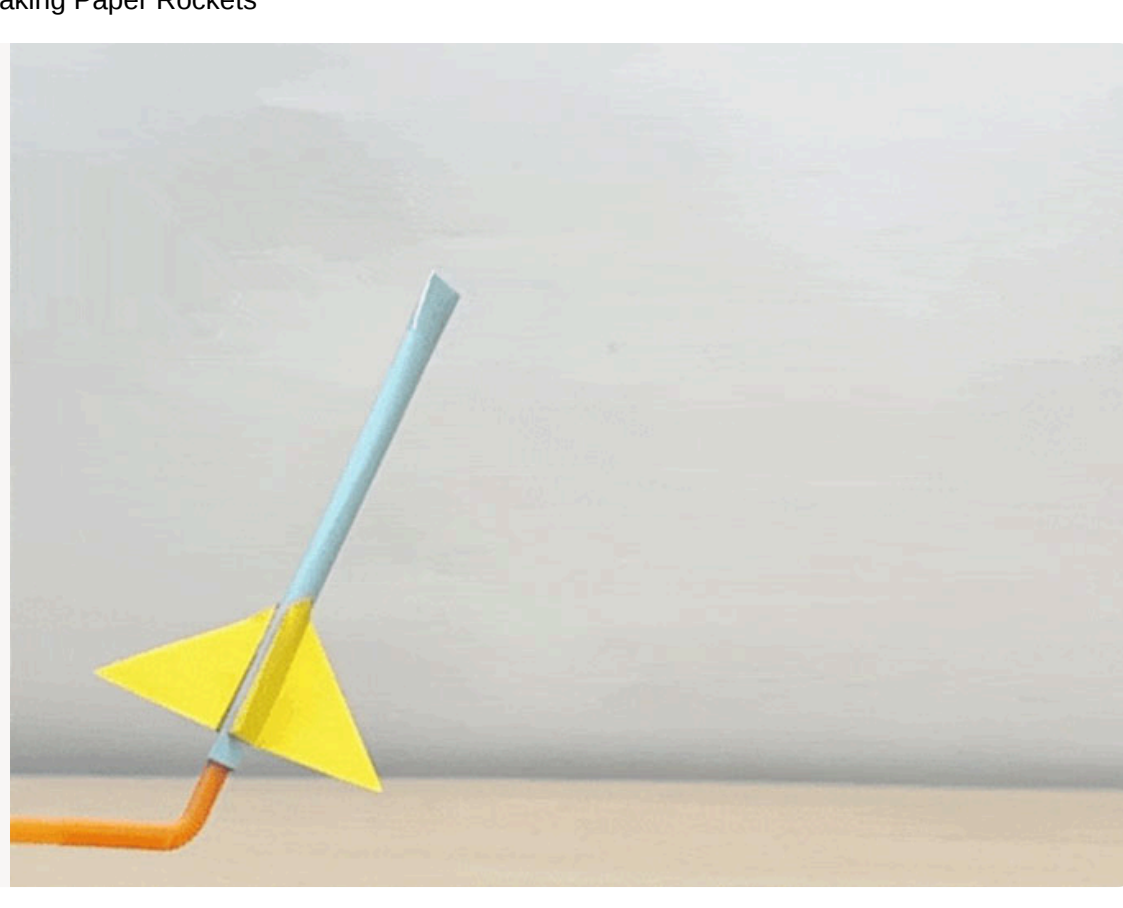
Ages: 6-8



Less than 30 minutes



Grownup needed



Have you ever played with toy rockets or watched real rocket launches on television? In this project, you'll create simple rockets using paper, tape, and straws, and explore how fin design affects how far your rocket can fly.

### Materials Needed

Coloured card paper  
drinking straws  
scissors  
clear tape  
double-sided tape  
pencil  
ruler



### Step-by-step tutorial

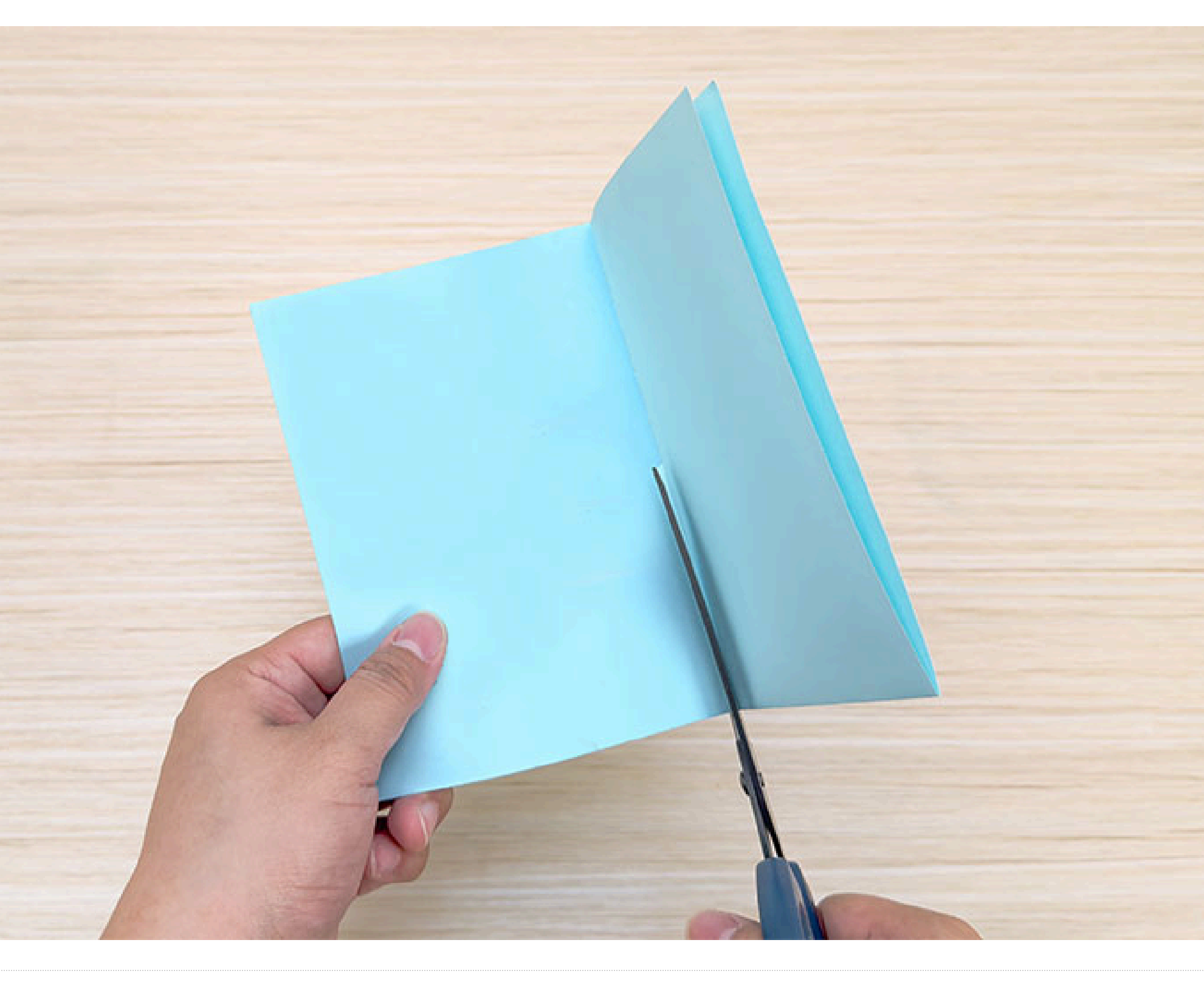
#### Step 1

Fold the card paper in half twice.



#### Step 2

Using scissors, cut along the fold lines to divide the card paper into four pieces. This will allow you to make four rockets.



#### Step 3

Roll the card paper into a tube and secure it with double-sided tape.



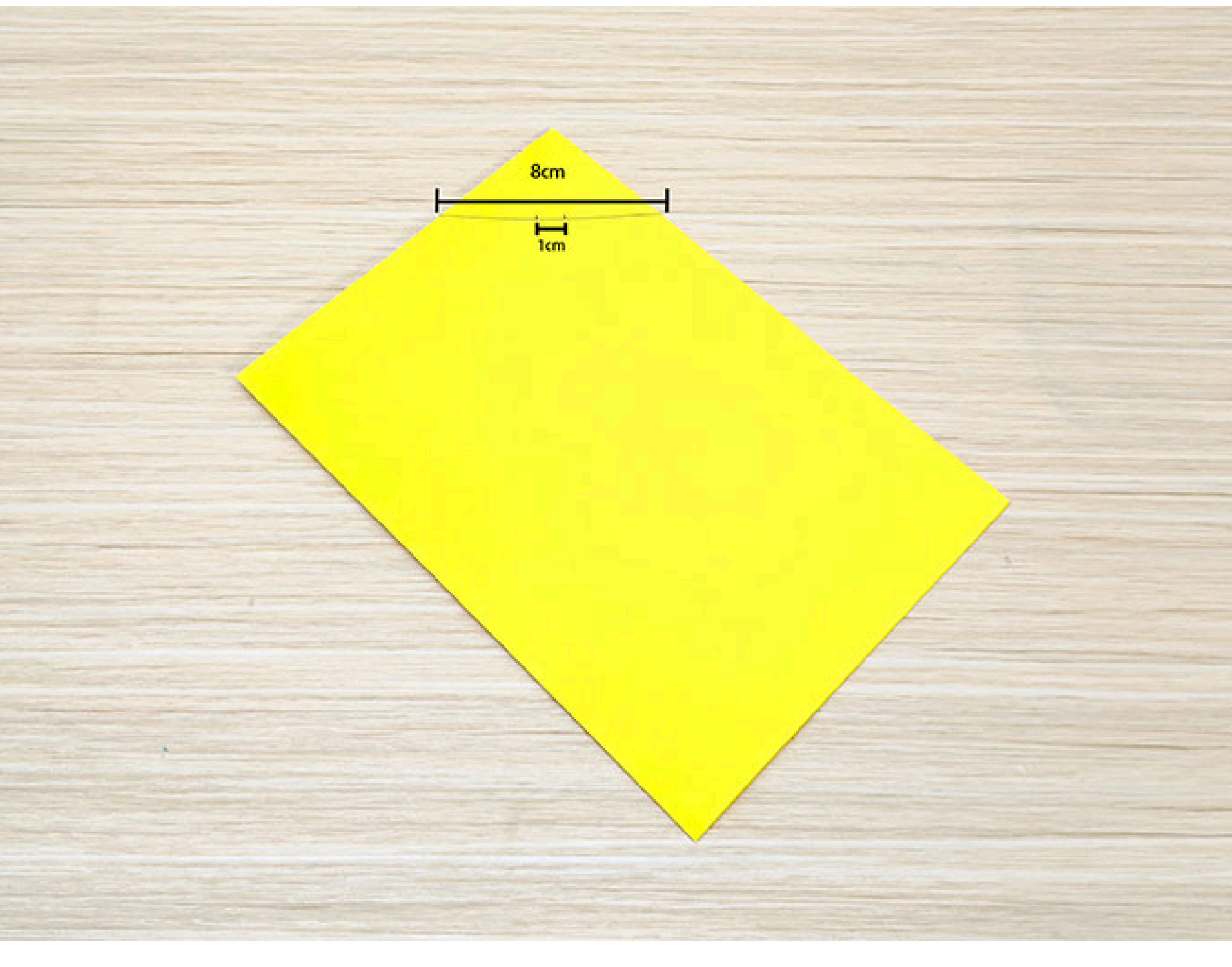
#### Step 4

Fold one end of the paper tube as shown and seal it with tape.



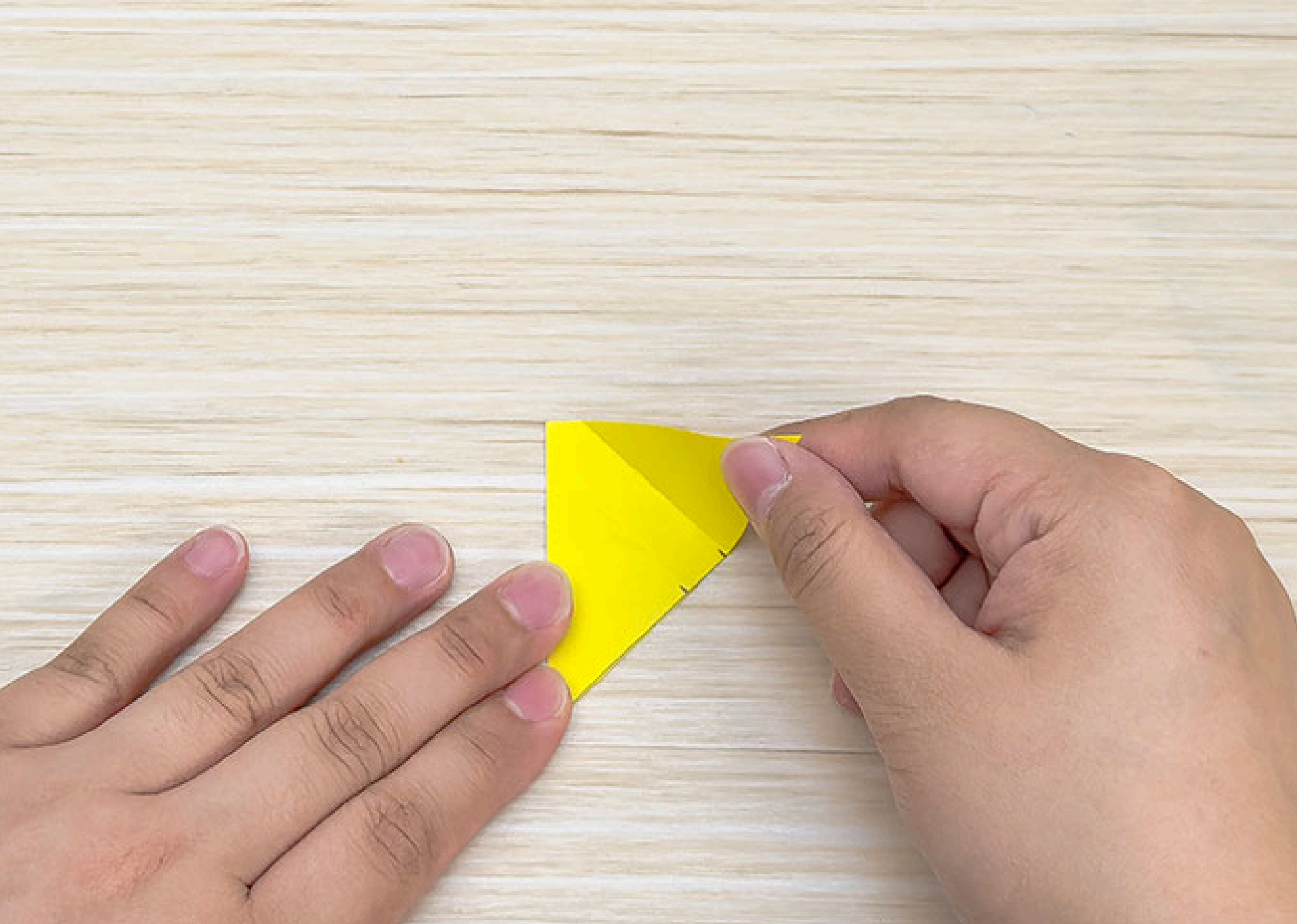
#### Step 5

Next, fold the card paper in half. The base of the triangle should be about 8cm. Make marks at 3.5cm and 4.5cm in the middle. Use scissors to cut a triangle from the folded card paper at the corner.



#### Step 6

Fold the cut triangle along the marked points.



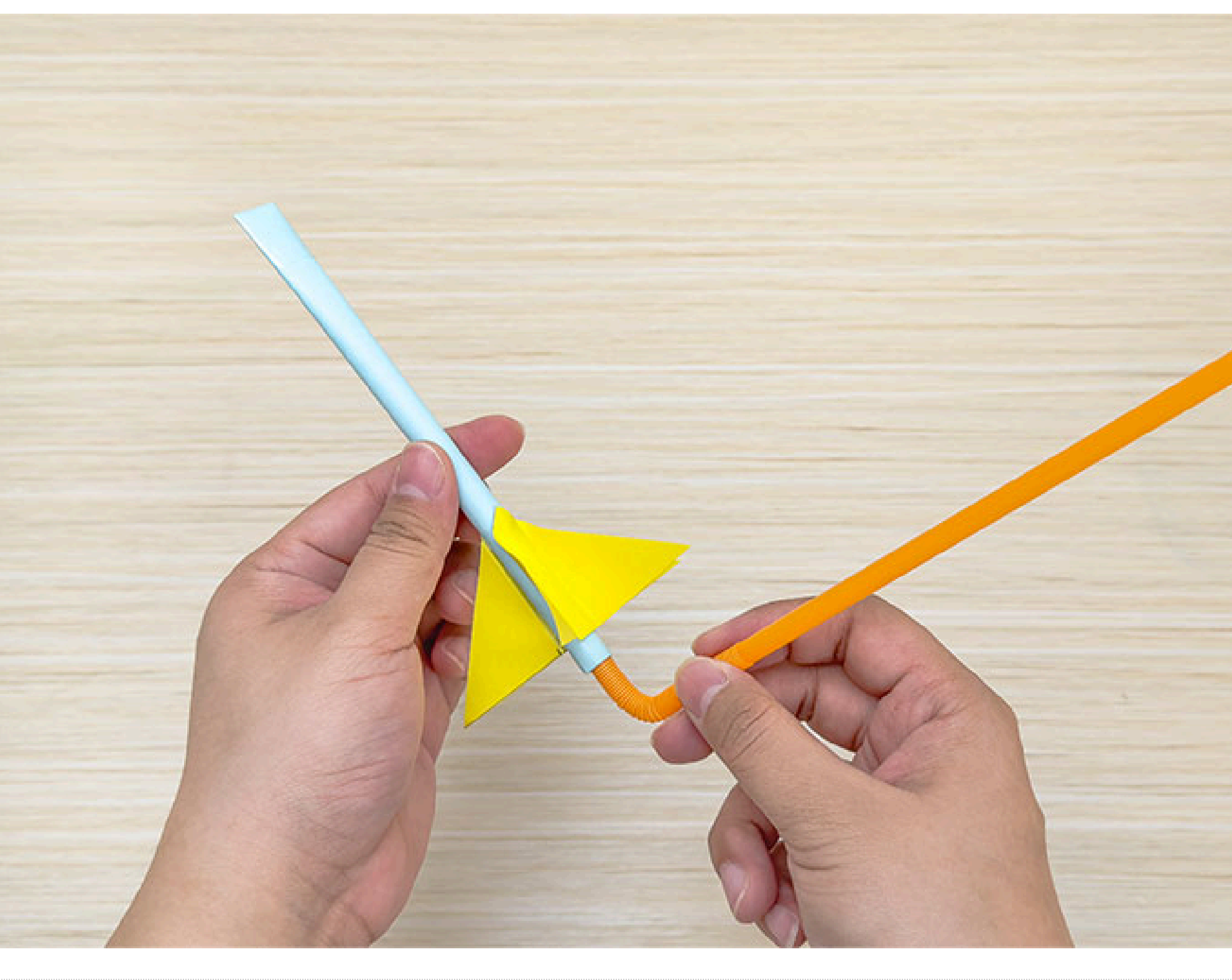
#### Step 7

Then, attach the middle of the triangle at the 1cm mark to the rocket body.



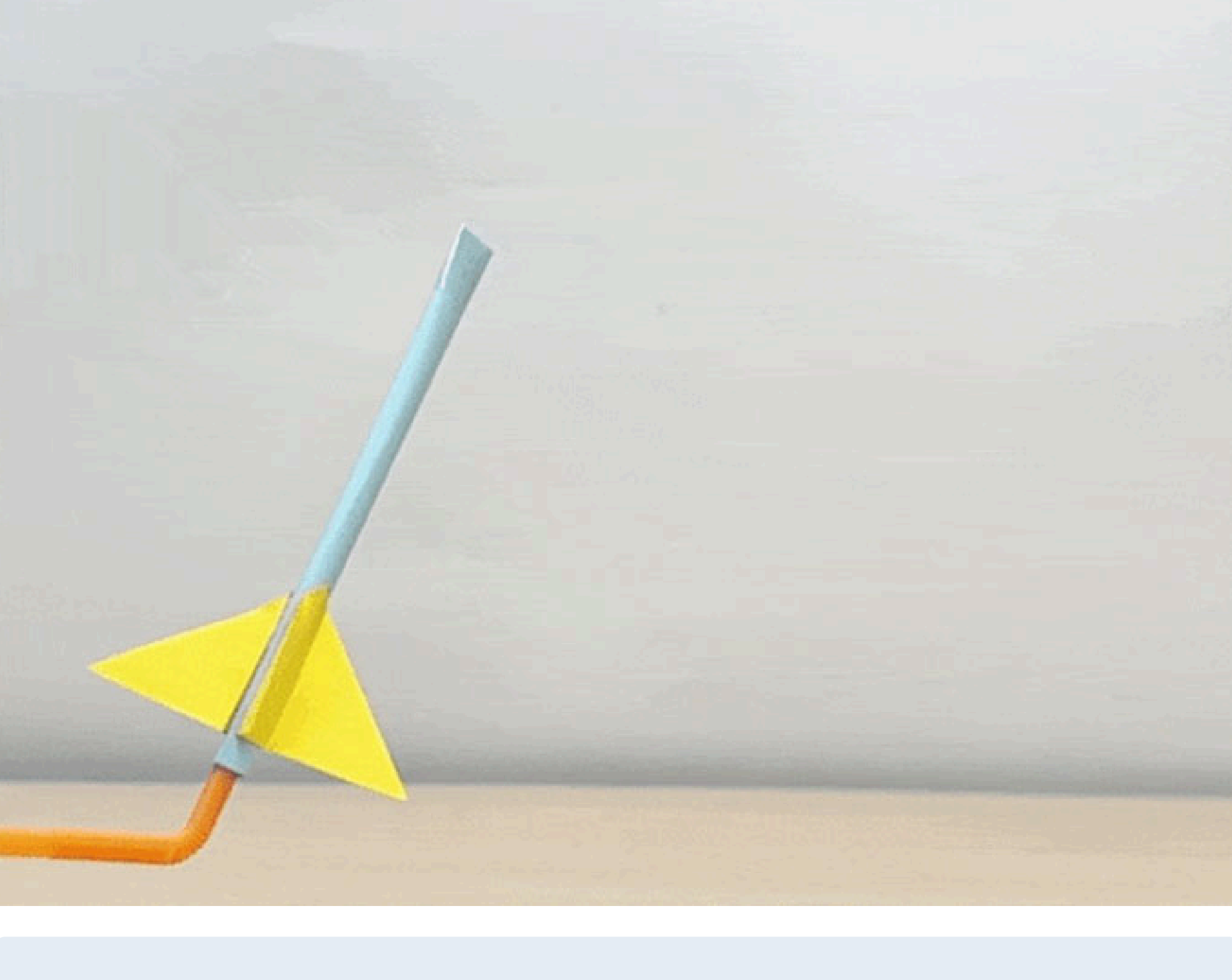
#### Step 8

Now, place your paper rocket on the straw.



#### Step 9

Blow through the straw and see how far your rocket can fly!



### The Science Behind It:

Try making a rocket without fins and compare it with a rocket that has fins. Make sure to test them under the same conditions, such as the same location and blowing force. Compare the flight distances of both rockets - what do you notice?

A rocket without fins might briefly fly straight when first launched, but it will quickly lose control due to lack of stability, potentially rolling or veering off course. In contrast, a rocket with fins should fly further and maintain a straighter path because it's more stable.

You can also try designing fins of different shapes and sizes and observe how these designs affect your rocket's stability and flight distance. Which fin design makes your rocket fly the furthest?