



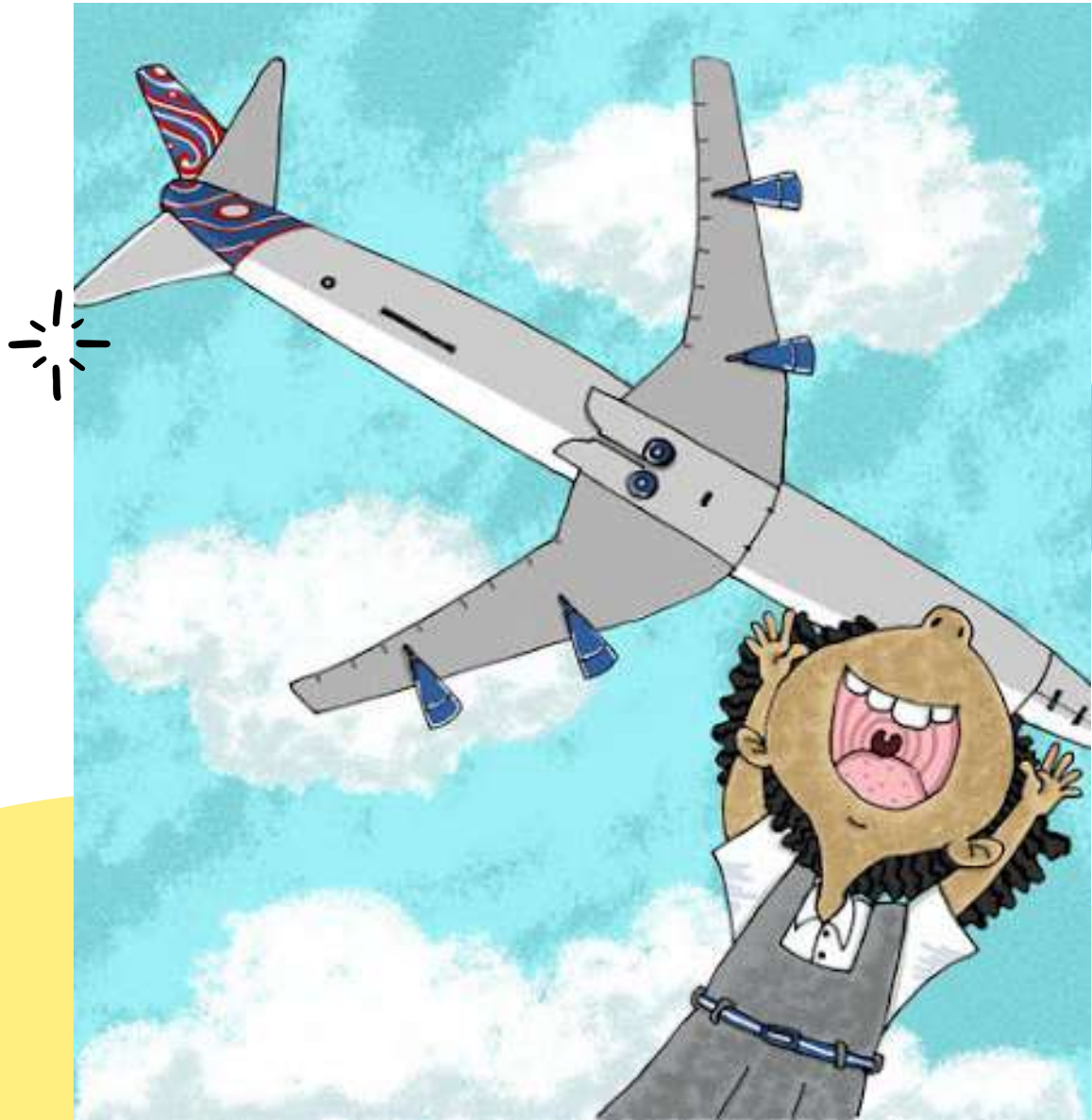
# How do Aeroplanes Fly?

## Activity Sheet for Students

[letsread.asia/AeroplanesFly](https://letsread.asia/AeroplanesFly)



Sarla wants to fly like birds in the sky. When she grows up she wants to become a pilot and fly big planes in the sky. Have you seen all the different buttons and controls that pilots have to work with?



A big plane made up of metal, engines, and machines have a lot of features and are very complex. It uses fuel to fly and can travel through long distances in a very short amount of time.

But Sarala doesn't have to wait until she is old to fly something.

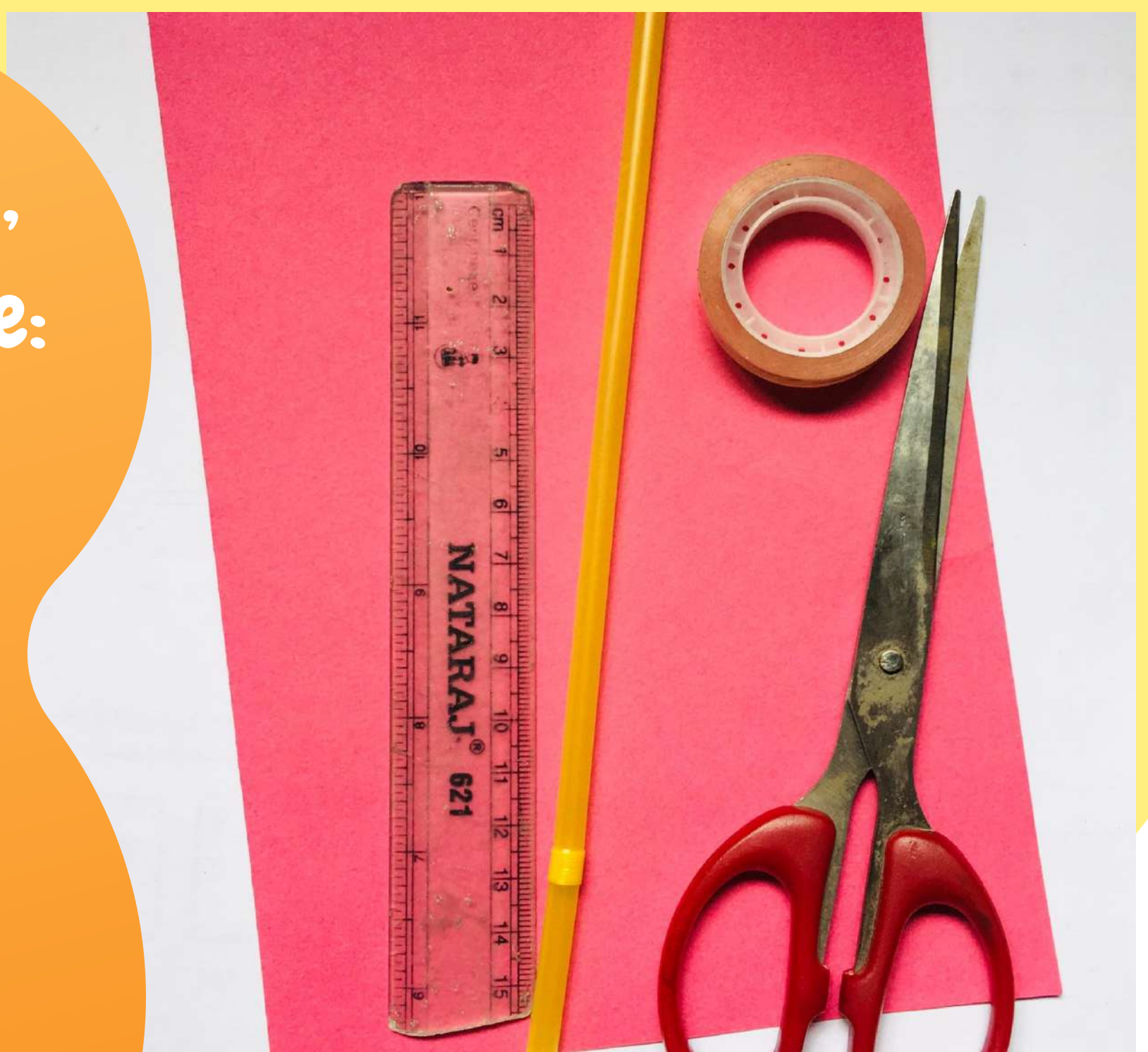
Gliders are small planes that have small engines but also make use of their lightweight and large wings to sail in the air.

Let's help Sarala make a small glider that doesn't even need an engine and is a lot of fun to fly.



Before we start making,  
Make sure to have these:

1. Plastic Straw
2. Paper
3. Ruler
4. Scissor
5. Cello tape



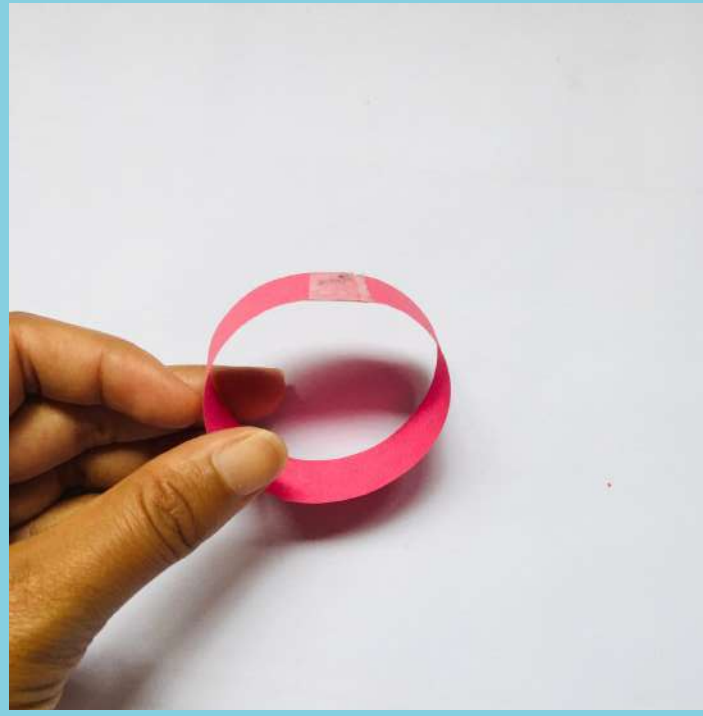


# Let's make our own loop glider



## Step 1

Take paper and cut two rectangles from the paper. One measuring 2cm x 16cm and other 2cm x 10cm.



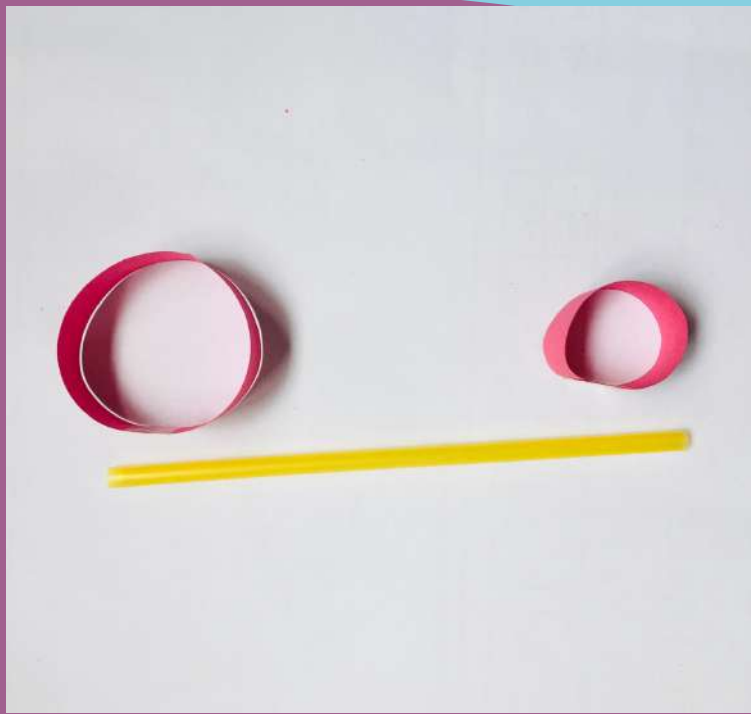
## Step 2

Bend the big rectangle into a loop so that its ends overlap a bit. Tape the overlapping end together using cello tape.



## Step 3

Take the small rectangle and do the same.



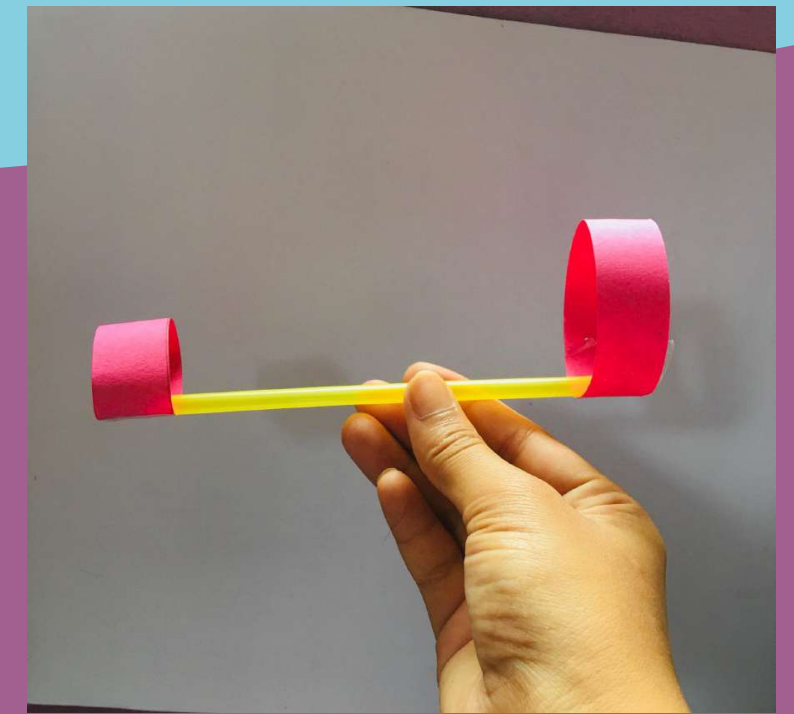
## Step 4

Cut a straw of length 15 cm.



## Step 5

Using tape attach the small loop to one end of the straw and larger loop to another.



To fly the loop glider, hold it high with the small loop in the front and throw gently. The loop glider will glide through the air.

## Challenge Your Skills

1. Design your loop in such ways that it covers maximum distance.
2. Add more straw and loops and make a bigger glider.
3. Experiment with different shapes such as triangle, rectangle instead of a circle and observe the difference.

# Challenge Your Mind

1. One thing you notice in aeroplanes is the wings.
2. Add wings to your loop glider. See if it improves your design or not.
3. What happens if you do not paste the wings straight?
4. Think of an example of a bird or a machine that glides instead of flying.
5. What happens when you add a conical structure in the front of the loop glider just like in the shape of an aeroplane?





# How do Aeroplanes Fly?

## WORKSHEET

Make different changes in your loop glider and note down how its movement changes.

Use the sheet below to track your observations.



Make these changes

What happened to the loop glider's flight?

Change the position of the loops.

Instead of a circular loop, make a triangular or a square loop.

Add a middle loop between the first two loops.

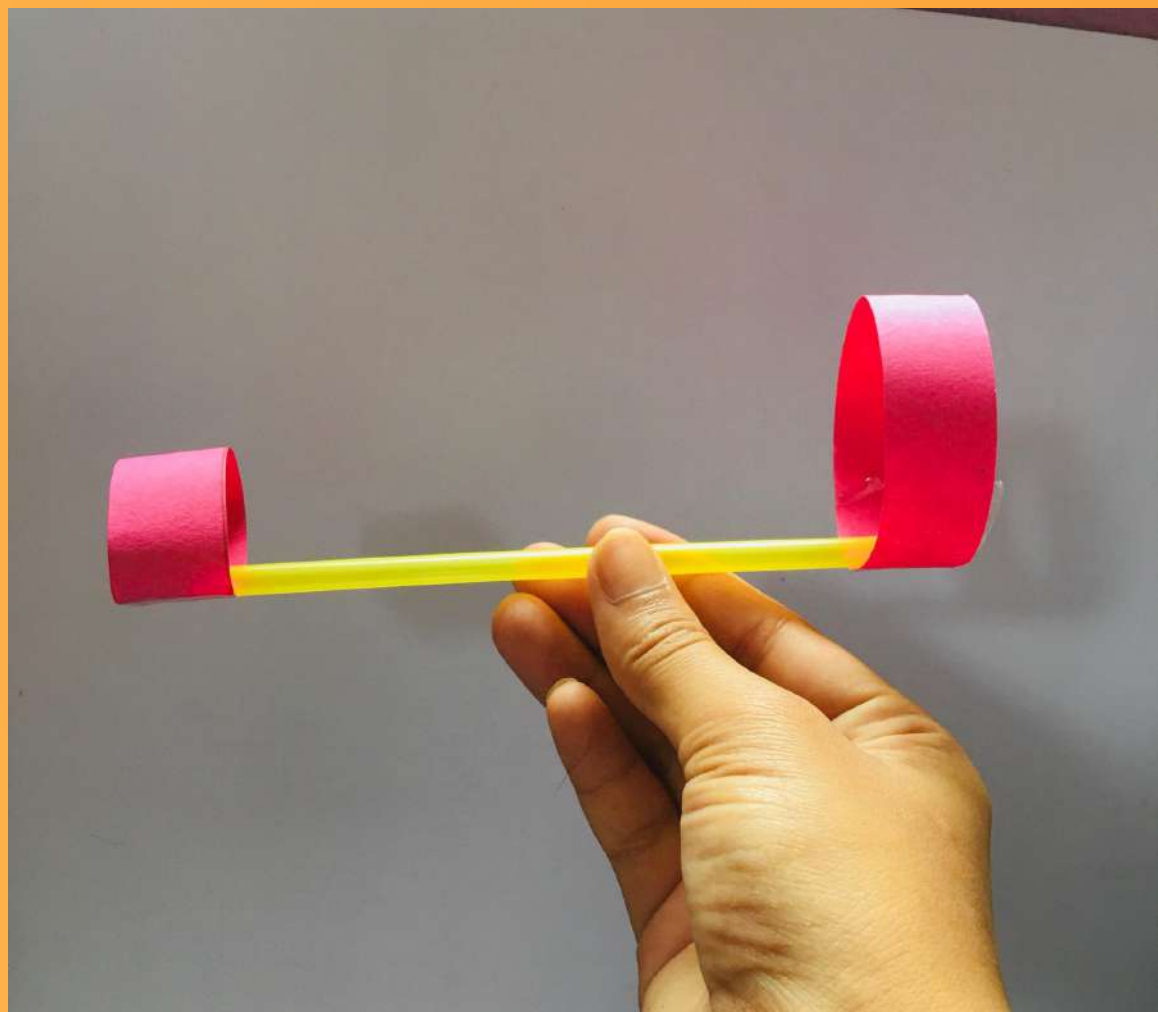
Add a wing on your loop glider.



# How do Aeroplanes Fly?

## HANDOUT

### The shape of your loop glider



What does the shape of your loop glider remind you of? If you look closely, you can see that the body of your loop glider looks like that of an aeroplane, a fish, or a bird. Their bodies are called streamlined bodies and they help fish swim through water and birds glide through the air smoothly. It is because of the same reason that our loop glider glides so well. What other reason do you think helps our loop glider glide smoothly in the air?