

Activity: Glider and Teabag Rocket

On SCOPE's Things That... Fly episode, you saw Julia make a glider and a teabag rocket. Here's how she did it:



What you need

GLIDER

Thick cardboard (eg. an old cereal box)

Scissors

Sticky tape

Straws

TEABAG ROCKET

Teabag

Plate

Matches

What to do

GLIDER

1. First cut two strips out of cardboard- one 2cm x 10cm and another 2cm x 20cm.
2. Then make a ring out of each cardboard strip by attaching the ends with sticky tape.
3. Next up, make one long straw by pinching the end of one straw and fitting it into the end of another straw.
4. Finally, sticky tape a ring to each end of the long straw and make sure the two rings line up!
5. Now it is time to fly the glider! You can do this by holding the straw in the middle and pointing the glider in the direction you want it to go, with the smaller ring in front of the bigger ring.
6. You can even make gliders with different sized rings and different straw lengths to see how it affects how it flies.

TEABAG ROCKET

1. Make the rocket inside or in an area where there is no wind, and ask an adult to help.
2. Undo the staple at the top of the bag (without ripping it!) and pour out all the tea.
3. You'll be left with a paper tube which you can stand up on a plate.
4. Next up (and here is where you need an adult to help), light a match and burn the top of the tea bag.
5. The teabag will burn and eventually fly away!

What's happening?

The glider might look a bit weird but it definitely flies! And it flies so well because the circular wings reduce drag.

The teabag rocket is a very cool demonstration of hot air rising. But why does hot air rise? Well it is all to do with the particles. When particles heat up they're more excited and take up more space because they need more room to move around. This causes the air to expand. So hot air is less dense than cold air. It is a bit like popcorn. Un-popped corn doesn't take up much space, but once

it has popped you can fill an entire bowl! So the un-popped corn is like cold air and the popped corn is like hot air!