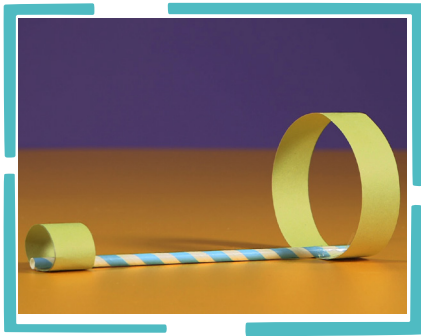


DIY Hoop Glider



What Do I Need?

- Thick A4 paper
- A ruler
- 1 non bendy straw
- A pencil
- Sticky tape
- Scissors

Skill Level:

Easy

Time

10 minutes

How Do I Do It?

1. Cut two strips out of your piece of paper; one the entire length of the long side and 2.5 cm wide and the other 10 cm long and 2.5 cm wide.
2. Curl each piece of paper to make a hoop and fix it with a piece of tape. You should have two hoops, one larger than the other.
3. Tape the small hoop to one end of the straw and the larger one to the other end of the straw with the open sides of each hoop parallel with each other so they look like the picture.
4. To launch, hold the hoop glider in the middle with the smaller hoop at the front and gently throw it.

Continued overleaf

DIY Hoop Glider (continued)

Safety Advice:

IMPORTANT GENERAL SAFETY NOTE FOR SUPERVISING ADULTS. This Terrific Scientific investigation has been devised so that with adult supervision, reasonable care and by following the instructions provided, no special safety equipment or knowledge is required to enjoy the experience safely. These safety reminders are designed to assist the supervising adult when planning and carrying out the investigation. Please read the instructions fully before starting.

- Don't aim your glider at anyone.

What's Happening? The Sciency Bit:

The forward force you give the glider by throwing it, called thrust, allows air to flow around the paper hoops. The hoops on the glider act like a wing allowing the air flowing around them to create an upward force called lift. Your glider will fly until gravity pulls it down to earth.

This investigation clearly shows gravity and upthrust forces in practice. Try making bigger hoops and test your glider. Does it travel further? Does using stiffer card make a better glider?

My Glider Doesn't Fly... What Can I Do?

- The paper you used may be too thin to hold the shape.
- Throw the glider with sufficient force for it to fly.
- If you only have thin straws, tape three together to make a stronger structure for your glider.
- If you have not taped the hoops to the straw parallel to one another (like in the picture), try again.