

The Awesomely Amazing Science club

WHIZZ POP BANG!

Teacher-led activity FLY AN AEROFOIL



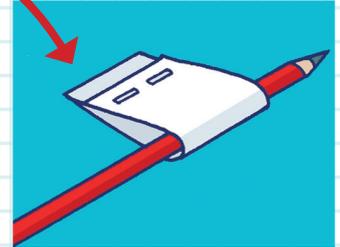
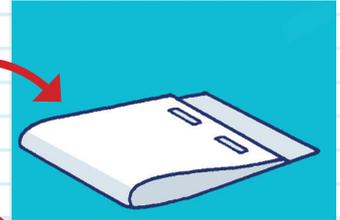
You will need:

- Pencil
- Piece of card 8 cm by 9 cm
- Stapler
- Hairdryer

It's called the angle of attack.

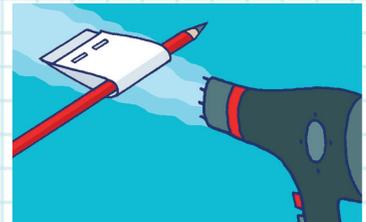
What you do:

1. Fold the card over to make an aerofoil shape, as shown. Secure it with staples.
2. Insert the pencil, as shown.
3. Hold the end of the pencil loosely between your index finger and thumb. Can you feel gravity pulling the aerofoil down?
4. Ask an adult to switch on the hairdryer and place it close to the front end of the aerofoil. Test your aerofoil at different angles to the jet of air.



You should find:

If the aerofoil is pointing slightly upwards relative to the air jet, it will try to rise upwards. It's producing lift, just like a real wing. The angle of the wing relative to the airflow is vital for aircraft too.



Pupil activity STUNT PLANE

What you do:

1. Cut out the templates.
2. Fold the body of the plane in half along the dotted line.
3. Fold down the stabiliser tabs on the tail along the dotted lines.
4. Stick a small ball of sticky tack inside the nose end of the plane, then tape the two sides of the nose together.
5. Slightly fold along the dotted line in the centre of the wings and fold down the tabs at the back of the wings.
6. Slot the wings into the main body of the plane at points A and then at points B.
7. Now hold the plane at the nose and turn it so that the wings are vertical, as shown.
8. Throw it sideways, across your body.

You will need:

- Sticky tack
- Sticky tape
- Template photocopied

You should find:

Your plane should fly around in a circle! Try throwing the plane upwards with the underside facing you and see if it loops the loop.

What if:

Try experimenting with the angle of the flaps and different throwing techniques.

