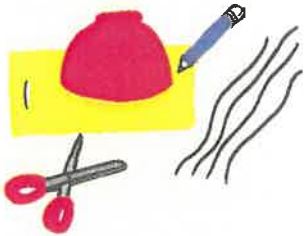


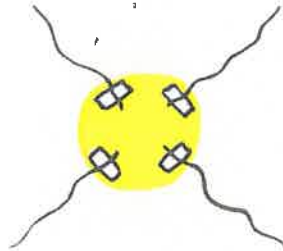
Parachutes

Make your own parachutes and find out how they work using a force known as air resistance.

359 Make a plastic parachute



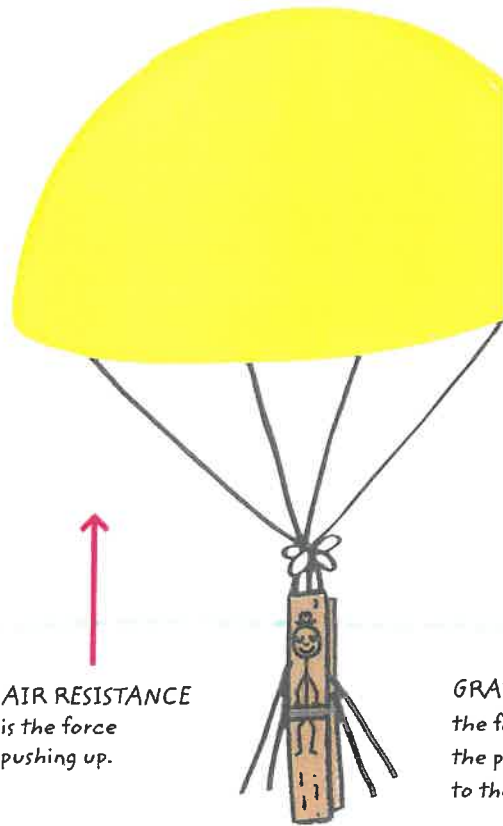
1. Place a large bowl on a plastic bag, draw around it and cut out a circle. Cut four pieces of string, about as long as your arm.



2. Arrange the pieces of string evenly around the circle and tape them on, like this.

3. Knot the ends of the strings together and attach a clothes peg to the ends. Hold the parachute up high, let it go and watch how it falls.

Make sure the knot and peg hang in the middle.



AIR RESISTANCE is the force pushing up.

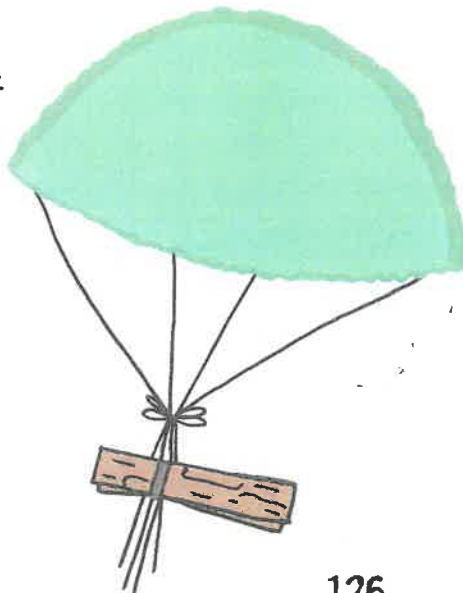
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As the parachute falls, it spreads out and traps air underneath it. This air pushes up against the parachute from below, creating a force known as air resistance. This slows the fall of the parachute.

360 Paper parachute

Using the method described in activity 359, make another parachute out of tissue paper.

A tissue-paper parachute falls in a similar way. The paper traps air, which slows the parachute's fall to the ground.



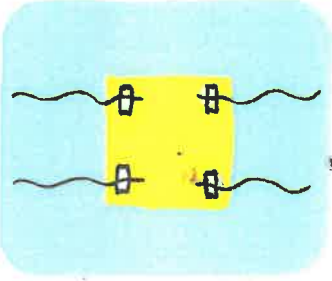
361 Small parachute

Use a smaller bowl to make smaller plastic and paper parachutes. See how they fall compared with the bigger parachutes from activities 359 and 360.

A smaller parachute creates less air resistance and falls more quickly.

362 Square parachute

Make a square parachute out of paper or plastic. How does it compare to a round one?

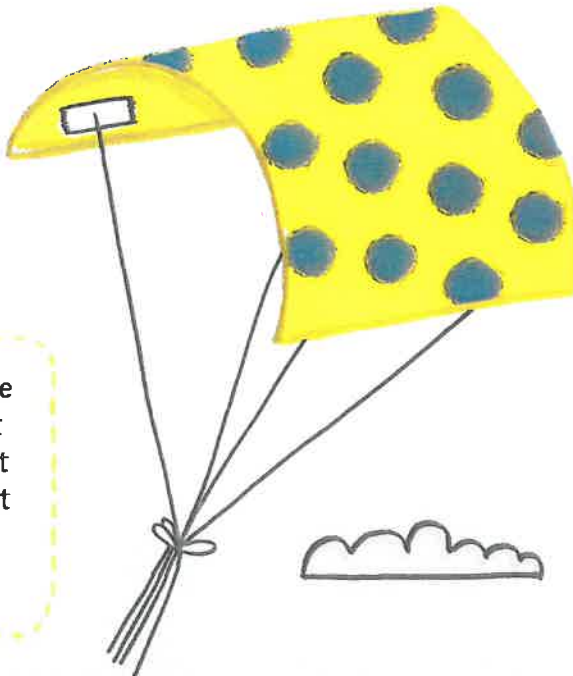


A square parachute falls in a similar way. Parachutes can be made in many different shapes, as long as they trap enough air.



363 No peg

Remove the peg from one of your parachutes and test it out again:



Without a peg, the parachute doesn't fall as smoothly. It needs some weight to keep it stable and upright.

364 Holey parachute

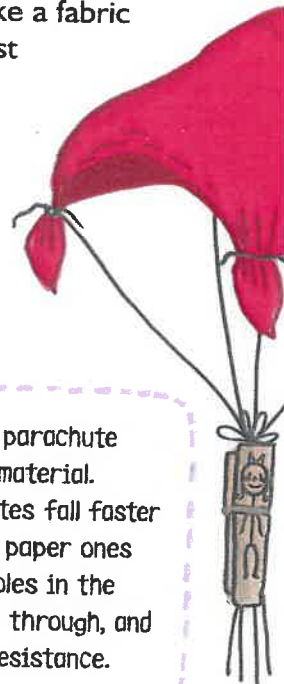
Use a sharp pencil to make several holes in a parachute. How quickly does it fall now?



A parachute with holes falls faster because it doesn't trap as much air.

365 Fabric parachute

Take an old hanky or tea towel and tie a string around each corner to make a fabric parachute. Test it out.



You can make a parachute from any light material. Fabric parachutes fall faster than plastic or paper ones because tiny holes in the fabric allow air through, and so reduce air resistance.