THE HOLIDAY MAKERS

ENGINEERING

TAKE A CLOSER LOOK

The air blaster

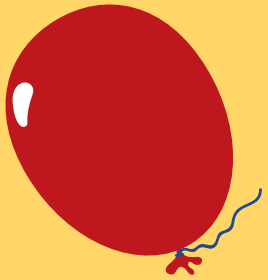
Supercharge air molecules by making your own air blaster

This air blaster works by trapping air and then using a stretchy balloon covering to fire it out in powerful jets that can even move objects!

Experiment with different sizes to see what gives you the most powerful blaster.

WHAT YOU'LL NEED

- A LARGE BALLOON



- A RUBBER BAND

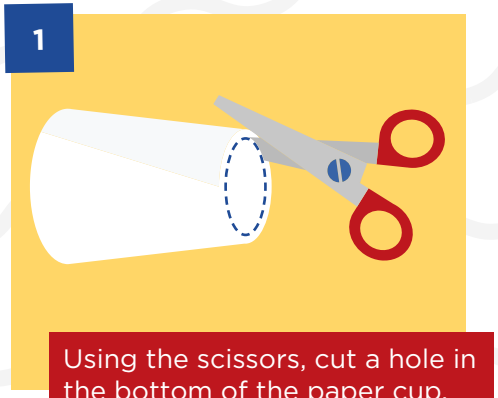
- LIGHTWEIGHT OBJECTS TO MOVE WITH YOUR BLASTER – E.G. COTTON WOOL BALLS, PING PONG BALL, PIECES OF PAPER

- SCISSORS

- A PAPER CUP

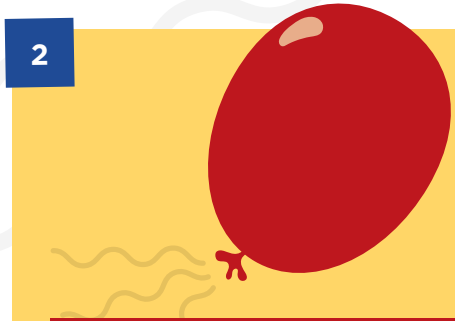
STEP-BY-STEP

1



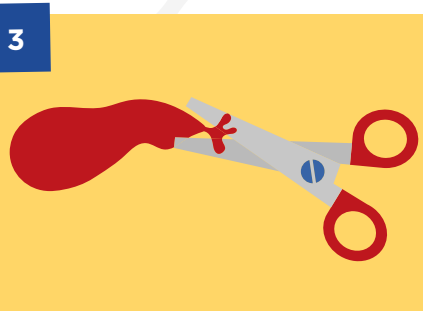
Using the scissors, cut a hole in the bottom of the paper cup.

2



Blow up the balloon to its full size to stretch it. Then let the air out.

3

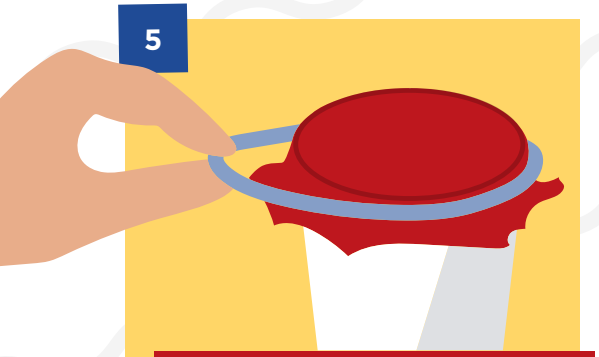


Cut off the neck of the balloon and then cut the balloon open to give you a flat piece of rubber.

4

Stretch the balloon over the top of the paper cup so it entirely covers the opening and overlaps the lip of the cup on all sides.

5

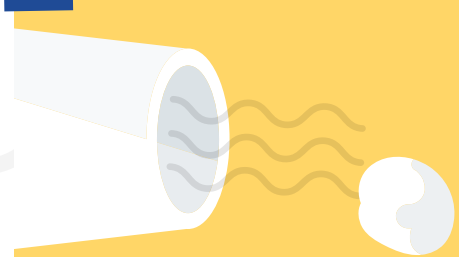


Place the rubber band over the top of the balloon and secure it under the lip of the cup. The balloon rubber should be pulled tight over the cup.

6

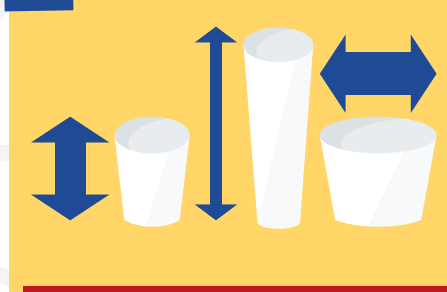
To fire the air blaster, hold the cup in one hand with the hole pointing away from you, pull the balloon rubber back and then release.

7



Test the strength of your blaster by seeing how far you can push different objects with the air.

8



You could also try making a blaster from cups of a different height and diameter to see how this affects the power.

DID YOU KNOW?

Engineers design air blasters which move objects from a distance. At theme parks, air blasters can be used to make ghosts and monsters move on haunted house rides.

We would love to see how you get on! Share your inventions with us using #theholidaymakers Twitter: @YoEgovuk
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