

Engineering experiment: make a balloon rocket

Takes about 30 minutes
Please only do this
experiment with a grown-up!

What do you need?

Balloon	any shape but long balloons work better
A drinking straw	straight ones work best: if yours are bendy, cut off the bendy part
String	you'll need enough to stretch across the room
Sticky tape	Sellotape is fine
Scissors	
Paper, colouring pens and pencils	Optional: for decorating your balloon rocket



Instructions

1. Read through these instructions before you start! You might find it useful to have pieces of sticky tape ready.
2. Cut a piece of string that's long enough to stretch across the room.
3. Feed the string through the straw.
4. Pin or stick the string so it goes from one side of the room to a point higher up on the other side. Your string should be pulled tight, but make sure it's not too high – you'll need to tape your straw to your balloon in step #8.
5. Design, cut out and colour some paper decorations for your balloon rocket.
6. Blow up the balloon and pinch the end to keep it sealed (don't tie it).
7. Attach the decorations to the balloon with sticky tape.
8. Tape the straw to the top of your balloon.
9. Let go of the end of the balloon and watch it travel.

Keep hold of your balloon
and don't let the air escape!

How far did it go? How could you make your balloon rocket fly further?

What are we learning?

To begin to understand forces, and how weight can affect the amount of thrust needed to push something forwards (see the video for information). To have a go at being a rocket engineer!