OUR SPACE MISSION

Balloon Rocket

Make a balloon move along a string. Watch which way the air goes, and which way the balloon goes. That push is called thrust.

Safety
A grown-up helps. Do not let the balloon pop near your face. Pick up any broken pieces. Do not put a balloon in your mouth. Never look at the Sun.

You will need

A balloon, a straw, tape, and a string about 3 metres long. If you cannot get those, you can still read this and say what you think would happen.

Predict

Before you let go, which way will the balloon travel? Write it here. This is your idea, not a score.

Build

Thread the string through the straw.
Tie the string so it is level.
Blow up the balloon. Do not tie it. Pinch the neck.
Tape the balloon to the straw.

Test

Let go of the neck.
Watch the air.
Watch the balloon.

What happened?

Write or draw what you saw. There is no wrong balloon. Some stick. Some fly off the string.

Try changing one thing

Change only one thing. Use less air, or a longer string. Do not change two things at once.

What is happening?

The air rushes out one way. The balloon moves the other way. A rocket does the same job with hot gas. It does not need to push against the air around it. Most of a real rocket at launch is the propellant its engines use.

Mission complete

You investigated thrust. This paper does not add a stamp on the website.