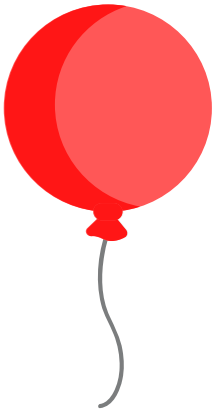
DIY Science
Balloon Rocket



What you will need:

- 1 Balloon (round ones will work, but the longer 'airship' balloons work best)
- 1 Long Piece of String
- 1 Plastic Straw
- Tape

Instructions:

1. Tie one end of the string to a chair, door knob, or other support.
2. Place the end of the string through the straw and add a bit of tape to the straw.
3. Pull the string tight and tie it to another support in the room or hold it, keeping the straw at one end.
4. Blow up the balloon (but don't tie it). Pinch the end of the balloon and make sure it's stuck to the straw with the tape.
5. You're ready to launch, let go of the balloon and watch the rocket fly!

How does it work?

As the air rushes out of the balloon, it creates a forward motion called THRUST. Thrust is pushing force created by energy. In the balloon experiment, our thrust comes from the energy of the balloon forcing the air out.

Different sizes and shapes of balloon will create more or less thrust. In a real rocket, thrust is created by the force of burning rocket fuel as it blasts from the rockets engine - as the engine blast down, the rocket goes up!

Newton's Third Law of Motion is at work here, which says for every action there is an equal and opposite reaction, so when the air blasts out one way, the balloon will go the other way.