

SCIENCE EXPERIMENT!

ROCKET BLAST OFF!!!



MAKING A BALLOON ROCKET

Dr. Nicole Grimes

WWW.DRNICOLEGRIMES.COM

BALLOON ROCKET

MATERIALS:

- 1 balloon (round ones will work, but longer "balloons work best)
 - 1 long piece of string (10-15 feet)
 - 1 plastic straw (cut off bendy tip!)
 - scotch tape
 - scissors
- (best done with the help of another person)

INSTRUCTIONS:

1. Tie one end of the string to a chair, door knob, or other support.
2. Put the other end of the string through the straw.
3. Pull the string tight and tie it to another support in the room. IMPORTANT: The strong must be perfectly straight/horizontal and taut!
4. Blow up the balloon (but don't tie it.)
5. Pinch the end of the balloon and tape the balloon to the straw as shown above.
6. You're ready for launch. Start at one end of your two supports. Let go and watch your rocket fly!



Dr. Nicole Grimes

WWW.DRNICOLEGRIMES.COM

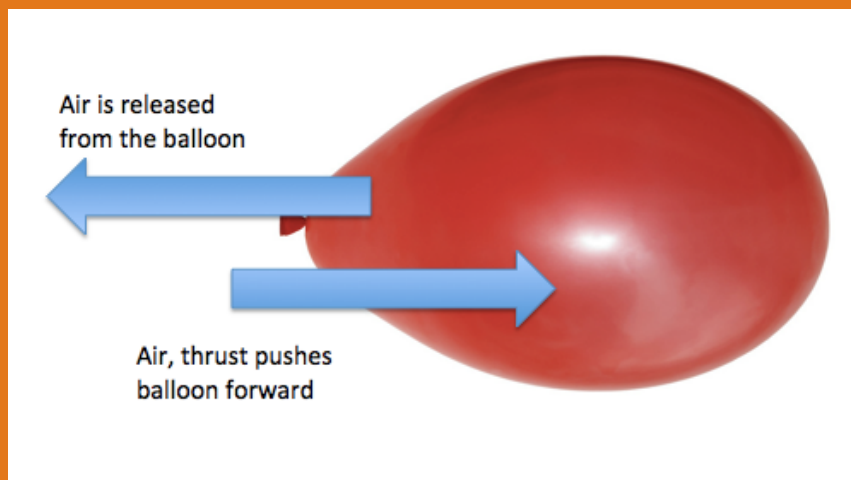
How does it Work?

So how does it work?

It's all about the air...and a force called **thrust**. As the air rushes out of the balloon, it creates a forward motion. Thrust is a pushing force created by energy.

In the balloon experiment, the 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 engines blast down, the rocket goes up!



Dr. Nicole Grimes

WWW.DRNICOLEGRIMES.COM

Follow ups!

CAN YOU GET YOUR ROCKET TO TRANSPORT A LOAD/CARGO?

In real life, rockets transport cargo into space. Can you figure out out to transport a small plastic cup holding a load with your balloon rocket?

Think about where and how to attach the cup.

You can use paperclips, pennies as your load or cargo. See how many you can transport!

Good Luck!!



Dr. Nicole Grimes

WWW.DRNICOLEGRIMES.COM

