

STRAW ROCKETS

LEARN ABOUT PHYSICS



MATERIALS

- Rocket printout
- Markers/crayons/colored pencils
- Scissors
- Tape
- Straws (you'll need one set of straws slightly larger than the rest)

DIRECTIONS

1. Color the attached rocket printout sheet and cut out each rocket.
2. Take your slightly larger straw and cut to the length of the rocket. Tape one end entirely closed, then tape it to the back of your rocket with the closed end at the top.
OR
Cut a piece of paper the length of the rocket and roll it into a tube that fits around your regular straws. Again, tape one end entirely closed, then tape it to the back of your rocket with the closed end at the top.
3. Slip a regular straw into the bottom of the rocket straw, and you're ready to launch! Just blow into the regular straw and see how far you can launch your rocket! Experiment with how far or high you can make it go.



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HOW IT WORKS

Rockets depend on forces and motion to fly. Your straw rockets use **thrust** and **gravity**.

thrust - a force that PUSHES. When you blow into the straw, the air expelled reaches the closed end and PUSHES the rocket into the air

gravity - a force that PULLS things downward. When your rocket flies, gravity is working to PULL the rocket down to the ground.

The physics of flight depend on Newton's Laws of Motion:

1. An object will only start or stop moving if a force acts on it.
2. Objects will move farther and faster if they are pushed harder.
3. When an object is pushed in one direction, there is always resistance of the same size in the opposite direction.



Experiment with how much you blow into your straw (thrust) and how it affects the rocket's flight. Experiment with the angle of your rocket launch to see how gravity affects the rocket's flight!



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