

Build a Fizzy Rocket!

art by Eamonn Donnelly

This experiment should be done outside. Find a friendly grown-up to help you and tell them it's time to go to the moon!

Stuff You'll Need

- A plastic film canister, with a lid that snaps on. Best are the kind with lids that fit inside the rim (Fuji film uses this kind), but other film canisters will work.
- Fizzy antacid tablets for an upset stomach made of sodium bicarbonate; if they also contain potassium bicarbonate, even better.
- Pan or jar to launch rocket from.
- Eye protection (safety goggles, glasses, or space helmet).



What Makes It Pop?

Antacid + Water = Lots of little gas bubbles. (Drop one in a glass of water and see!) Inside the closed film canister, all these bubbles fizz up, but the gas has nowhere to go. So pressure builds up (more and more gas) until it is enough to pop the lid off. Since the lid is facing down, the canister pops instead, and up it goes!

This is just how a real rocket works, except NASA likes to use rocket fuel instead of fizzy tablets.



Take the lid off the canister.



Fill the canister one-quarter to one-third full of water.



Put on your eye protection.



Break an antacid tablet into 2 or 3 pieces.

Experiment!

What happens if you use more antacid or water? Or less? What happens if you add a nosecone (a pointy cone top) and two or four fins? Try making a rocket out of some other containers. What works well? What doesn't? If you get any up to the moon, let us know!

Decorate Your Rocket!

Add some stickers, or make fins and a nosecone out of paper. Check out our handy plan online at www.askmagkids.com/crafts.



Weight Matters

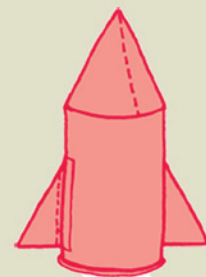
Just like a real rocket, the lighter your rocket is, the higher it will go. A paper body will make your rocket look cool, but it will also make it heavier, so it won't pop up as high.

If nothing happens after a couple of minutes, try again. If the canister lid is hard to open, try loosening it a bit. Or if it leaks, it may be too loose; try another canister. Or try different amounts of tablet or water.

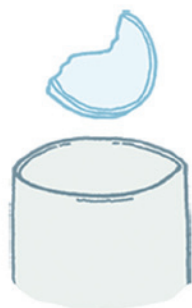
Can't find a film canister?

Since many people use digital cameras, film canisters are not as easy to find as they used to be. Try asking your grandparents or at a camera store; they might have spares. You can also make a rocket out of anything about the same size and shape, with a lid that forms a tight seal, but isn't so tight it won't pop off. We've successfully launched candy and slime containers, but they shouldn't be too much larger than a film canister, or the gas won't build up enough pressure.

For more cool space info and projects, go to <http://spaceplace.nasa.gov/en/kids/>.



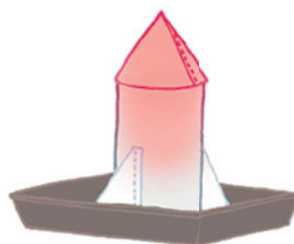
10...
9...
8...
7...
6...
5...
4...
3...
2...
1..
Blast off!



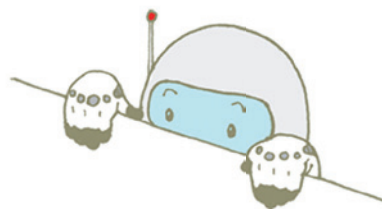
Drop one piece of fizzy tablet into the water in the canister.



Very quickly, snap the lid on tight.



Place the canister LID DOWN in the pan or jar.



Make sure your rocket is pointing AWAY from people and stand back!