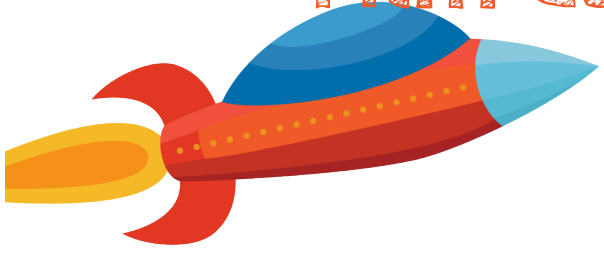


15-minute Family STEAM

Film Canister Rockets



Supplies Provided

Alka-Seltzer tablets
Index card
Paper
Film Canisters

Supplies From Home

Scissors
Tape and/or Glue
An open space to fly your rocket

1. Wrap and tape a tube of paper around the film canister. Invert the canister so that the lid lies flat on the table.
2. Cut fins from the index cards and tape them to the rocket.
3. Make a nose by cutting a circle out of paper. Cut out a pie shape from the circle and twist the paper into a cone. Tape the cone together then tape it on the open end of the paper tube.
4. Turn the rocket upside down and fill the canister 1/3 full with water.
5. Drop in a 1/2 tablet of Alka-Seltzer and snap the lid on tight.
6. Quickly stand the rocket upright (lid on the table) and stand back! **CAUTION:** Be careful when launching your rocket. Stand back and don't point it at anyone.
7. Make sure you time how long it takes for your rocket to return to earth! This can help you a lot especially if you decide to try an experiment (See the 'What would happen if' ideas below).

The Science

As the antacid tablet fizzes, carbon dioxide is released inside the canister. Pressure from the gas builds and eventually pops the lid off. The thrust, or push, of your rocket is related to how much pressure built up inside the canister before the top popped off.

What would happen if...

You change the design of your rocket?

You use more or less fuel (effervescing tablets and water)?

You use hot or cold water?

Remember that when you are conducting experiments you only want to change one thing at a time. Keep everything else the same in order to see how the thing you changed (or the variable) affects the outcome. In this case your rocket going up into the air



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