



Poppin' Rockets



Use baking soda and vinegar to create a chemical reaction which launches a rocket (a film canister) sky high.

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Materials

- Film canisters (Fuji film brand; many photo labs will give empty canisters away for free)
- Baking soda (sodium bicarbonate)
- Vinegar (acetic acid)

Note: Do this project outside. The baking soda and vinegar reaction makes a mess! Plus your rocket is going to fly high! As soon as you put the lid on the film canister, move out of the way—it can blow fast!

Instructions

1. Take the top off the film canister and pack the lid tightly with baking soda.
2. Pour about two teaspoons of vinegar into the film canister.
3. Gently put the lid on the film canister and snap closed.
4. Turn the canister upside-down, put it on the ground, and stand back.
5. After a few seconds, the canister will shoot up into the air. If your rocket always fizzes, try a film canister with a tighter-fitting lid.

What's Happening

You are creating a chemical reaction between the baking soda (NaHCO_3) and the vinegar (CH_3COOH). The vinegar reacts with the baking soda, producing carbon dioxide gas (CO_2). Pressure builds up until the small canister can no longer contain the gas. The lid pops off, the canister shoots up into the air, the gas escapes, and the pressure is released.

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