



California State University of Bakersfield, Department of Chemistry

Film Canister Rockets



Standards:

2-PS1-2. Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.

5-PS1-4. Conduct an investigation to determine whether the mixing of two or more substances results in new substances.

Introduction:

There's nothing like a little rocket science to add some excitement to the day. When you add the water it starts to dissolve the Alka-Seltzer tablet. This creates a gas called carbon dioxide. As the carbon dioxide is being released, it creates pressure inside the film canister. As the pressure builds up in the canister, the lid explodes off and sends the canister flying toward the sky.

Materials:

- Vinegar
- Baking soda
- Water
- Film Canister

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Safety:

- Always have an adult with you to help you during your experiment.
- Always wear eye protection and gloves when doing chemistry experiments.
- Make sure to conduct this experiment outside.

Procedure:

1. Open film canister and use the lid to make a baking soda paste with water by pouring an equal amount of water and baking soda into the lid and mixing them together until the substance is pasty.
2. Pour vinegar into the canister portion a quarter of the way full and then put the cap in place.
3. Put the film canister upside down on the ground and watch the rocket explode.

Data and Observations:

Record your observations in this space

1. Why doesn't the rocket shoot up immediately?

References:

1. <http://www.stevespanglerscience.com/lab/experiments/acid-base-rocket> (Date Accessed; August 4, 2014).