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Final paper

Have you ever seen a video of someone putting Mentos in Coca-Cola? Did you see how it shot up really high? Well my experiment is all about that. I want to know more about how and why this happens and what Mentos flavor makes the soda shoot the highest.

The Abstract

The first thing I did for my experiment was background research. I found lots of good information and figured out how these products were made. It was very interesting to find out that some of the products used in my experiment were made by accident. I also researched the achievements that these major brands accomplished and how they impacted the environment. I then recorded my hypothesis. I think that the mint flavor Mentos will make the soda shoot the highest. I then did my actual experiment. I put in all the different mentos flavors into my Soda and recorded all the different flavors and heights.

My experiment is all based around soda and Mentos. Now this experiment is not just about making soda explode it is about why and how. We

know that Carbon Dioxide is the reason that fizzy drinks actually fizz. By doing some research I found out that mentos has a sugar, aspartame and potassium benzoate shell. When those ingredients combine with the ingredients in Diet Coke it makes many, many carbon Dioxide bubbles causing a Coca-Cola explosion!

Background research

Coca-Cola history

The company of Coca Cola had a very interesting creation story. Coca Cola was invented on January 29, 1892 in Atlanta Georgia. Dr. John S. Pemberton, a pharmacist, actually made the syrup for Coca Cola. He was actually trying to make cough syrup but instead made a delicious soda fountain drink that was then put on the shelves for five cents a glass. The Coca-Cola company has many famous accomplishments over the years. In 1935 Lettie Pate Evans joined the board of directors making her mark as the 1st woman to serve on board of a major company. In 1966 the company launched its new project called the “The Nutrition Project” assigning an international team of scientists and food technologists the task of finding a solution to the “protein gap”. In 1984 the company launched its newest project the “Coca Cola foundation”. The Coca-Cola company is committed to giving back 1 percent of its prior year operating income annually through the foundation. The foundation helps three

priority areas: Well-being, water, and women. In 2009 the Coca-Cola company created the first ever recyclable PET plastic drink bottle made from 30% plants. The company has made many other amazing impacts in the world and in their company. Who knew a fizzy drink could make such a big impact on the environment.

Mentos History

The Mentos company also had an interesting creation story. In 1932 two brothers Micheal and Pierre Van Melle came up with the idea of a peppermint flavored caramel candy and thus called it Mentos. In 1950 Mentos advanced to Rotterdam and started international orders to France, Germany and the UK. In 1973 they expanded their variety of flavor options. In 1976 Mentos had their very first commercial . In 1990 Mentos sales were through the roof! In 2005 the Italian company Perfetti and the Dutch company Van melle merged and joined forces making Mentos available in shops around the world. In 2007 the world record was beaten for the most Diet Coke and Mentos explosions. Ironic right? In 2008 the mentos advanced to the U.S. with two exciting flavors.

My Hypothesis

Before I began my process and I wrote down what I thought would happen, my hypothesis. My hypothesis was that the mint flavored Mentos would shoot the highest. I thought that it would shoot about 9 feet up.

IV and DV

For this experiment my IV also known as my independent variable was different flavor Mentos. My Dv also known as my dependent variable was the Coca-Cola

The process

Now for the fun part... The process! I gathered all my 4 different flavors of Mentos and my 4 Diet Coke bottles and brought them outside where I will be measuring the soda height. I will take a tape measure and set the camera where it will not move so I can get accurate measurements every time. I put my camera on a tripod so I know that it won't move. I took chalk and made an x where I was going to put all the Coke bottles so they would be in the same spot. Then I got my Mentos tube. This tube has a small piece at the bottom so the Mentos won't fall through. I put it around the top and made sure the piece was pushed in. Then once it was all full of 6 Mentos I pulled the piece so the Mentos would fall in and I ran. I first took my mint flavoring and put 6 Mentos into the Soda and then I recorded my height. Then I put my 6 strawberry

Mentos into my next bottle and again recorded my height. Next I put my orange Mentos into my soda and recorded my height. Lastly I put in my lemon flavored Mentos and once more recorded my height.

Was my hypothesis right?

I looked over my recorded heights and my hypothesis and as you can see I was wrong about the height of the soda. The mint was not the highest, it was actually the strawberry flavor that shot the highest. The mint flavor actually shot the lowest.

Results

The results of my mint flavored Mentos was 10 feet high

The results of my strawberry flavored Mentos was 13 feet high

The results of my orange flavored Mentos was 11 feet high

The results of my lemon flavored Mentos was 12 feet high

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