CALIFORNIA STATE SCIENCE FAIR
2009 PROJECT SUMMARY

Name(s)
Joshua P. Kisbye

Project Number
29101

Project Title
Comparing the Effectiveness of Toothpaste Brands on Minimizing Tooth Decay

Abstract

Objectives/Goals
My 1st goal was to find with toothpaste worked best at preventing the decaying the soda caused. My 2nd goal was to find out which soda was the worst for teeth.

Methods/Materials
One (1) Crest cavity protection 6.4 oz tubes of toothpaste
One (1) Colgate Whitening 6.4 oz tubes of toothpaste
One (1) Aquafresh cavity protection 6.4 oz tubes of tooth paste
One (1) Aim cavity protection
Four (4) Coca-Cola cans of soda
Four (4) Pepsi cans of soda
Four (4) Dr. Pepper cans of soda
Four (4) A&W Root Beer cans of soda
Four (4) Water cans of distilled tap water from the sink
Five (5) Oral-B kid#s toothbrushes
Two (2) 42 by 23 centemeters metal pans
Twenty (20) Wal Mart 16 oz clear plastic cups
One (1) pair of commercial tongs
One (1) E-Bal triple beam balance scale
Twenty (20) Sunnyside Farms grade AA chicken eggs

Results
Crest was the best on average and worked best against Coca-Cola, but was least effective against water. Aquafresh was 2nd best on average and worked best against Pepsi, but was least effective against water. Colagte was 2nd to worst and worked best against Pepsi, but was least effective against Dr. Pepper. Aim was the worst and worked best against A&W Root Beer, but was least effective against water.

Conclusions/Discussion
My hypothesis for toothpaste vs. soda was Auqafresh would work best because of the fluoride and other anti-bacterial ingredients. Then Colgate, 3rd Crest, and finally, Aim in that order from best to worst. I based this all on anti-bacterial ingredients. The only part I got correct was I predicted Aim would be the least effective and it was the least effective (210.5544 on average). Another part I got wrong was I predicted Aquafresh would be best, but Crest was the best (253.4844 on average), then Aquafresh (250.558). Colgate came in 3rd instead of 2nd (246.0125). An important observasion I made was Colgate

Summary Statement
I am experimenting to find out which soda prevents tooth decay the best and which one is not as effective.

Help Received
My advisor helped revise my board.

Preliminary