

CALIFORNIA STATE SCIENCE FAIR 2007 PROJECT SUMMARY

Name(s)

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Project Number

J1209

Project Title

Snap, Crackle, and Pop!

Abstract

Objectives/Goals

My objective was to see if Rice Krispies would snap, crackle, and pop in liquids other than milk and I believed that club soda would pop the loudest because of its carbonation.

Methods/Materials

The materials I used for each of three trials were a sound meter, a video camera, bowls, Rice Krispies, orange juice, fat free milk, tap water, and club soda. I started with ½ cup of Rice Krispies in a bowl and ½ cup of one of the liquids in a measuring cup. I then poured the liquid over the cereal and recorded the data on the video camera. I then recorded the data in my journal by watching the video playback.

Results

I took the data from each trial and averaged the decibel level for each liquid. The average decibel level for the three trials for club soda was 58.4 decibels. Orange juice averaged 54.3 decibels, water 55.7 decibels and milk 53.3 decibels. Because of the video camera recordings, I had an unexpected set of results, which was the length of time the cereal snapped, crackled, and popped. In all three trials, club soda recorded for the longest time.

Conclusions/Discussion

Rice Krispies did snap, crackle, and pop in other liquids, and club soda caused the loudest decibel levels. Club soda also registered on the sound meter for the longest time of all the liquids in the trials. This project expanded my knowledge of physical science because I now know that liquid enters the Rice Krispies# air holes and cause them to #explode.# The carbonation in the club soda caused a more forceful #explosion# which lasted longer than other liquids. I also learned how to use a sound meter, and much more about how sound travels, and how it is produced.

Summary Statement

Do Rice Krispies snap, crackle, and pop in other liquids besides milk?

Help Received

Mother held the camera and called out the data on playback. Science teacher suggested use of a sound meter and provided the meter.