CALIFORNIA STATE SCIENCE FAIR
2013 PROJECT SUMMARY

Name(s)

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Project Number

33312

Project Title

Electrolytes

Abstract

Objectives/Goals

After a hard basketball game or practice and losing may electrolytes through our sweat, we wanted a way to regain them. Drinking liquids seemed to be the best way, but what liquid could we use that had the most electrolytes was still a mystery. Our group's objective became to find out what drink between Orange Juice, Powerade, Gatorade, Sustain Sports Drink, tap water, and distilled water had the most electrolytes. We expected the Sustain Sports Drink to have the most electrolytes and expected there to be a big difference in the amount of electrolytes between the sports drink, orange juice, and the distilled water and tap water.

Methods/Materials

To figure out what drink had the most electrolytes we created a circuit using a digital multimeter, copper wire, a nine volts battery, a pen cap, and two alligator clips. After creating the circuit we dipped the pen cap portion of the circuit, into a ceramic bowl that held one of the drinks, and measured the current. The drink with the highest current would be the one with the most electrolytes.

Results

Our results showed that there wasn't much of a difference between all of the drinks except for the distilled water which was always at 0.

Conclusions/Discussion

Our hypothesis was not supported by our experiment nor was it close to what we expected it to be, but we do not find this a failed experiment at all. Although our hypothesis was not correct we did obtain the goal of our project to find out what drink held the most electrolytes.

Summary Statement

This project was based on the idea to try and find out what drink had the most electrolytes, and we discovered there wasn't a big difference between tap water, sports drinks, or orange juice.

Help Received

Mr. Ornelaz helped with the digital multimeter; Mrs. Coppolo helped with the hypothesis; Madeline's and Andrea's moms helped putting the board together the fist time; Mrs. McCloskey helped organizing the events; Science teachers helped choose project.

Preliminary