CALIFORNIA STATE SCIENCE FAIR
2005 PROJECT SUMMARY

Name(s)
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Project Number
J1135

Project Title
Best Buy in AA Batteries

Abstract

Objectives/Goals
My project was to determine which of 9 AA batteries purchased from family patronized stores would give the best general performance, with an emphasis on the most work per dollar. I hypothesized that the Panasonic Alkaline battery would perform best and be the best buy.

Methods/Materials
Six alkaline and three non-alkaline AA batteries were performance tested in two trials using a toy train engine pulling 4 cars on an oval wooden track. Lap times, operational time, and train weight were recorded. Calculations included power, work, and work per dollar.

Results
The Eveready Gold Alkaline battery performed best and was the best buy, disproving my hypothesis. The alkaline batteries outperformed the non-alkaline batteries.

Conclusions/Discussion
Cost per battery and battery performance varies among the batteries tested. When purchasing batteries, knowing the work per dollar will help you select the best buy in AA batteries.

Summary Statement
Comparing work per dollar among 9 different AA batteries used in operating a toy train can help you make a good financial decision about which battery to purchase.

Help Received
Father helped with computer graphics; editing and review helped by Mrs. Luckin (Fairmont School); mother helped with typing and general assistance.