CALIFORNIA STATE SCIENCE FAIR
2012 PROJECT SUMMARY

Name(s)
Jane K. Whatley

Project Number
J0328

Project Title
Egg Drop

Abstract

Objectives/Goals
The experiment was to see if it was possible to make a container that can prevent a raw egg from cracking when dropped from about 15 feet above the ground. This container will be called an R.E.P. (Raw Egg Protector). If the right design was used, the raw egg should not crack when it hits the ground. The R.E.P. can also be tested to see if different materials affect the performance.

Methods/Materials
After planning a design, the R.E.P. was built using a shoebox, cardboard, tape, and Velcro. Then the egg was put in and then dropped from about 15 feet above the ground. The R.E.P. was checked to see if the egg didn't crack. When the egg cracked, the R.E.P. was adjusted to fix the problem. When the egg didn't crack, the R.E.P. was tested 3 times to make sure it worked. The R.E.P. was first tested with cotton balls. This process was repeated with bubble wrap, sponge, and shredded plastic which replaced the cotton balls as the cushioning materials.

Results
The first 4 times the R.E.P. was dropped were unsuccessful. The egg cracked the first try and the egg wasn't put in the R.E.P. for the next 3 tries. After every try, the R.E.P. was adjusted to fix the problem. On the last 3 tries, the egg didn't crack. The egg still didn't crack when the cushioning materials were replaced and tested 3 times each.

Conclusions/Discussion
The results of this experiment support the hypothesis. It is possible to make a container that can prevent a raw egg from cracking when dropped from about 15 feet above the ground. All of the cushioning materials worked successfully.

Summary Statement
My project is about placing a raw egg in a container to protect it from cracking when dropped from 15 feet above the ground.

Help Received
My mom helped me by providing the materials for my experiment. My dad helped by finding and explaining the math equations to me.