CALIFORNIA STATE SCIENCE FAIR
2016 PROJECT SUMMARY

Name(s)

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Project Number

36446

Project Title

5 Second Rule! Does It Really Apply and Do Different Ground Surfaces Affect the Myth?

Abstract

Objectives/Goals

The purpose of my experiment is to find out what type of ground has the most bacteria while referring to the five second rule.

Methods/Materials

I am using different grounds as my independent variable. My dependent variable is the amount of bacteria colonies left on the petri dishes. This is a good choice because it is an accurate way to test the amount of bacteria on each type of ground. Once I swab the skittle after it being on the floor for five seconds, I swab the petri dish, and put it in an incubator. After three days, I count the amount of bacteria left on the dishes. The amount of bacteria colonies will determine if the cement, carpet, or tile has the most bacteria.

Results

The cement had the most bacteria colony growth. The average number of bacteria colonies for the cement was 16.07. A low variable was the carpet. The carpet had the least bacteria colonies. The average number of bacteria colonies for the carpet was 3.6.

Conclusions/Discussion

I learned a lot from my experiment. I learned that there are many bacteria on the ground, but there is the most bacteria on cement (out of carpet, cement, and tile). I think that this was important because it can show people how dirty the floor really is. It can teach people to be more cautious, so they could think about how many germs are on an object after it falling on the floor.

Summary Statement

I discovered that the surface a food object lands on does affect bacteria growth. The cement showed the most bacteria growth and the carpet had the least amount of bacteria.

Help Received

Jewely Lickey, Science teacher at Sanger Academy Charter School provided testing area and equipment, Davin Aalto high school teacher prepared agar dishes