

CALIFORNIA STATE SCIENCE FAIR 2010 PROJECT SUMMARY

Name(s)

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Project Number

J1711

Project Title

Microbes in the Mouth

Abstract

Objectives/Goals

The objective of my project is to quantify and compare the number of bacterial colonies in the mouths of a dog, cat, rabbit and human.

Methods/Materials

To obtain my results I gathered two oral samples from one dog, cat, rabbit, and human with sterile swabs. The samples were then streaked on sterile agar plates in a zig-zag formation. All the bacterial samples were grown at room temperature in the same location. The bacterial colonies were then counted, averaged, and compared.

Results

The results of the study showed that the rabbit had the most bacteria in its mouth with 73 colonies. The dog followed with a colony count of 22.5, then the cat with a count of 7.5. The mammal with the least amount of bacteria in its mouth was the human, with a bacterial count of 1.5 colonies.

Conclusions/Discussion

My project compared the amount of bacteria in the mouth of a dog, cat, rabbit and human. My hypothesis was that the dog would have the most bacterial colonies in its mouth followed by the cat, then the human, and lastly the rabbit. My results indicated that I needed to reconsider my hypothesis.

The findings of this experiment expanded my knowledge in many different ways, and are important to the outside world because they have real life applications. For example, the bacterial colonies in an animals' mouth may pose a health threat to a human because of the probability of infection if bitten by the animal. These results may also change the way you treat your animal. One example is that you may never let your dog lick your face again. You may also brush your teeth more, and maybe your pets# teeth once in a while too.

Summary Statement

My project quantifies and compares the number of bacterial colonies in a dog, cat, rabbit, and human's mouths.

Help Received

Dad helped paste papers on board; science teacher advised and edited project: Mom and Dad helped with exparamentation