

CALIFORNIA STATE SCIENCE FAIR 2006 PROJECT SUMMARY

Name(s)

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Project Number

J1336

Project Title

What Lurks in the Lockers?

Abstract

Objectives/Goals

The objective of this experiment was to find out the relative amount of bacteria and the general type of bacteria found on commonly touched surfaces in our school. The hypothesis was that a computer room keyboard would have the most bacteria.

Methods/Materials

Ten sites were selected and numbered. Sterile swabs were used to transfer bacteria and the other microorganisms to the surface of nutrient agar plates. The plates were streaked and incubated for 72 hours. Plate observations were taken at 24, 48, and 72 hours. The colonies were counted. Gram stains were made of 10 different colonies.

Results

In two separate trials, it was found that the computer keyboard and the soap dispensers had the most bacteria. In both trials, the faculty room door handle had little growth. The gram stains showed gram positive cocci and rods. No gram negative organisms were seen, fortunately.

Conclusions/Discussion

The results supported the hypothesis in one trial, but not in the second. However, since the keyboard had the second highest colony count in the second trial, it was concluded that the computer keyboards are highly contaminated due to the frequent amount of touching. It was also concluded that the bacteria on the keyboards was normal flora from the skin and from dirt because it was gram positive.

Summary Statement

The objective of this experiment was to find out the relative amount of bacteria and the general type of bacteria found on commonly touched surfaces in our school.

Help Received

Ms Ohanessian lent her microscope, lab, and incubator; Mother helped with gram staining and streaking