CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY

Name(s)
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Project Number
J1437

Project Title
Determining and Exterminating House Bacteria

Abstract

Objectives/Goals
The objective of my project was to determine and exterminate bacteria on household objects. My hypotheses were that the doorknob would have the most bacteria, and the bleach would exterminate the most bacteria.

Methods/Materials
For my experiment, gather and use the following: distilled water, methanol, Lysol, bleach, alcohol, toilet flusher, doorknob, computer mouse, Petri dishes, pipettes, test tubes, cotton swabs, glass handle, glass bowl, scissors, a measuring cup, and paper towels.

To begin project, measure and fill test tube with 10ml of distilled water. After, swab designated area with a cotton swab for fifteen seconds. With scissors, snip off the top of swab into the water-filled test tube. For thirty seconds, agitate the tube so bacteria will spread throughout water. Using a pipette, vacuum up .2ml of the bacterial water from the test tube and release onto Petri dish. Next, wait approximately ten minutes for the water to soak in until flipping Petri dish upside down and storing into a warm, dark place for 72 hours to germinate. Repeat previous steps to other areas until all areas have a total of ten Petri dishes/trials. After that, repeat previous steps after cleaning each area with household cleaning substance and re-swabbing area until each cleaning substance also has total of ten Petri dishes/trials. After 72 hours, take out total of eighty Petri dishes to observe and record results.

Results
Remote control averaged 130 bacteria colonies, and the doorknob averaged 118. The computer mouse averaged 117, and the toilet flusher averaged 113 colonies. Lysol cleaned an average of 28%, and alcohol cleaned an average of 27%. Water then cleaned an averaged of 26%, and bleach cleaned 14%.

Conclusions/Discussion
My hypotheses were both incorrect; the remote control had the most bacteria, instead of the doorknob, and Lysol cleaned the most, instead of bleach. I determined that simple house areas are contaminated with bacteria, but there are also many easy household substances to exterminate them.

Summary Statement
For my project, I will be determining how much bacteria are on household objects and exterminating the bacteria with safe cleaning household substances.

Help Received
Parents helped with project idea; Mother edited board and helped take pictures; Mr. Whittington helped supply materials; Mrs. Bridger helped eit papers; Mrs. Cloud suggested improvements.