California Science Center

CALIFORNIA STATE SCIENCE FAIR
2001 PROJECT SUMMARY

Your Name (List all student names if multiple authors.)
Brittany E. Rice

Project Title (Limit: 120 characters. Those beyond 120 will be ignored. See pg. 9)
Germs: The Life of Microbes

Science Fair Use Only

J1225

Division
J Junior (6-8) J Senior (9-12)

Preferred Category (See page 5 for descriptions.)
12 - Microbiology

Abstract (Include Objective, Methods, Results, Conclusion. See samples on page 14.)
Use no attachments. Only text inside these boxes will be used for category assignment or given to your judges.

Objective: The purpose of my experiment was to find out how long pathogens live. My hypothesis was that the pathogens would eventually die in about an eight-day period, depending on what kind they were. Also, I kept in mind that different pathogens have different food requirements.
Materials and method: To test my hypothesis, I swabbed commonly touched items that a person would be likely to interact with everyday. I then exposed a sterilized, empty petri dish that was divided into four sections labeled one, two, three, and four, on the bottom. After the first two days, I swabbed section one, and put transferred any living bacteria into another petri dish containing agar. I repeated the procedure with the section two, three and four waiting two days between each section. I recorded the number of colonies in a randomly selected 1 cm2 section, every two days, starting with group two.
Results: I found that pathogens die at different rates, depending on the temperature and surface of what they live on. For instance, the pathogens from the dollar live longer than those obtained from the metal bathroom door. I found that my hypothesis was correct, the bacteria were decreasing at different rates, and that they were dying.
Conclusion: My results support my hypothesis. My studies will hopefully give people a better understand of the fact that they need to wash their hands more often to prevent transfer of bacteria that may cause illness.

Summary Statement (In one sentence, state what your project is about.)
Tested the life of microbes found on 5 common objects.

Help Received in Doing Project (e.g. Mother helped type report; Neighbor helped wire board; Used lab equipment at university X under the supervision of Dr. Y; Participant in NSF Young Scholars Program) See Display Regulation #8 on page 4.
Mom drove me to collect supplies for my project.