CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY

Name(s)
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Project Number
J1318

Project Title
Toning Up, or Being Contaminated? The Mystery Behind Bacteria Levels in Gym Equipment

Abstract

Objectives/Goals
I am testing the bacteria level in gym equipment.

Methods/Materials
30 Hach Paddle Testers (20 Bacteria and 10 Mold); Thermometer; Bleach; One low watt light bulb; Masking Tape; Duck Tape; One large cardboard box; Saran Wrap.

(for testing gym equipment): 1.Gather all materials. 2.Remove Paddle Tester from vial. 3.Press one side of the paddle to a piece of equipment. 4.Turn the paddle over and repeat. 5.Incubate the paddle tester. 6. Wait 24-48 hours and then record data. 7. Pour bleach into vial and let sit for 1 hour to clean and then dispose.

(for making incubator): 1. Gather all materials. 2. String light bulb so that heat reaches inside of box. 3. cut a square opening in the side of the box and cover it with Saran Wrap taped around the edges. This is for viewing bacteria. 4. Put thermometer inside of incubator and turn on.

Results
For my science fair project, I tested bacteria in gym equipment. My results were very shocking. For my first round of bacteria testing, the Free Runner had the most bacteria at about 8 colonies and then the Chest Press had about 6 colonies. The step mill had 3 and the leg press and cross trainer both had 1 colony. For my second round of bacteria testing, the cross trainer had the most bacteria at 15 colonies. The step mill had the least at 2 colonies. For my third round of bacteria testing, the leg press had the most at 15 and the chest press had the least at 1 colony. For my fourth round of bacteria testing, the most was the Free Runner with 21 colonies and the least was the Chest Press with 2 colonies. For my first round of mold testing, the Chest Press had the most amount of bacteria at 41 colonies and the rest of the equipment only had one colony.

Conclusions/Discussion
My hypothesis was not proved correct by my testing. The chest press seemed to be tied with the cross trainer for most bacteria content. Although, I was surprised that all of my equipment tested registered and was even. Some problems I overcame while testing included too much light, not enough time, and frequent times of abandonment. I think my project will help further the amount of knowledge that an average person has about the bacteria in a workout environment.

Summary Statement
I am testing bacteria in gym equipment.

Help Received
Mother helped gather samples.