

Sporty Bacteria

Turcotte, Jada (School: Trenton High School)

The purpose of this experiment is to do an environmental swab for bacteria on different surfaces of sports equipment. 18 different types of sports equipment were sampled. It was hypothesized that gym shoes would likely have the most microbial growth because the soles of shoes are constantly touching different parts of the gym floor which likely contain microbes. Safety glasses, protective gloves, and lab apron were worn. The surface of each piece of sports equipment was swabbed and plated in duplicate. The plates were taped shut & were not opened again. Each plate had six numbered areas for six different swab samples. The sampled trypticase soy plates were then incubated at 37°C for 48 hours. After 48 hours, microbial growth was observed and documented. The number of microbes were counted using a scale of 1-5 with 1 being the lowest amount of microbial growth and 5 being the highest amount of microbial growth. The number of different microbes were also counted. This data was entered into a data table & graphs were created. Gym shoe sample showed the highest concentration of microbial growth. The weight equipment samples also had high concentrations of microbial growth. The hypothesis was proven correct because the shoes had the highest amount of microbial growth.