Microbial Analysis and Categorization of School Surfaces

Flores, Camryn (School: Lanier High School)
Jones , Britley (School: Lanier High School)

The purpose of this experiment was to develop a more concise understanding of what organisms inhabit the surfaces within a school. When students come into contact with school surfaces, they transmit bacteria to these surfaces that can later be transferred to other students who come into contact with them. This can lead to the transmission of illness to students who touch school surfaces. Despite this, there is a lack of standard regulations regarding the types and amounts of bacteria found on school surfaces. As stated earlier, the hypothesis was that if school surfaces were swabbed for microorganisms, cultured, and categorized with testing, a clearer understanding of microorganisms found in schools would be obtained. First, 9 desks and 4 computer keyboards were chosen across the three floors of the high school to be swabbed for microorganisms. The microorganisms collected with the sterilized cotton swabs were cultured in agar plates. The plates were then incubated so the microorganism cultures could grow. Next, the microorganisms were photographed and categorized based on their colony, form, shape, elevation, and other key characteristics. Twelve colonies that were the most prevalent were chosen, and then pure cultures were prepared. These plates were then incubated. The pure cultures were then used to perform various biochemical tests to identify the unknown organisms. Overall, the testing done will help identify the estimated density and specific type of microorganisms found and help determine their possible impact on student health.

Awards Won: