



CALIFORNIA SCIENCE & ENGINEERING FAIR 2019 PROJECT SUMMARY

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Project Title Swimming in Fear	
<p style="text-align: center;">Abstract</p> <p>Objectives Within this group project, our objective is to allow families and civilians to be able to use a simple and inexpensive way to test the water they swim in. The bacteria of Eschestria Coli is harmful to humans and threatens some people's lives, so this device will help protect those people. The survey will test the knowledge people have about the harmful bacteria in waters, and if they will willingly use this device.</p> <p>Methods To begin with, we combined blotting paper and raw materials such as chemicals like red phenol (0.02% Aqueous Solution), maltose monohydrate, dextrose monohydrate, and hydrophonic wax to create our device. With these materials, we gathered typical swimming waters that were nearby San Bernadino County and tested the waters with the device. We then gathered information to create a survey of specific questions.</p> <p>Results As a result of our experiment, we were successful in inventing the device that is able to test the swimming waters with Eschestria Coli in the water. Clear percentages of Eschestria Coli were shown within the waters we tested, and the survey revealed how much people really knew about the dangerous bacteria and our helpful experiment. This device could be very useful to many people and many people showed that they would like to use a simple and inexpensive device for water safety.</p> <p>Conclusions In conclusion, we have invented a water test that is capable of detecting Eschestria Coli in swimming waters within three to five minutes. The survey revealed the feedback from the people about what they believe in when it came to bacteria pollution. The device could be very useful in the future as pollution continuously increases over the years.</p>	
Summary Statement In summary, the environmental experiment succesfully tested the contamination in bodies of water using a newly developed device, and the informative survey revealed people's thoughts towards the pollution in their swimming waters.	
Help Received Wendi Rodriguez was our science teacher and helped us within this project; giving us advice, suggestions, and some of lab equipment.	