



CALIFORNIA STATE SCIENCE FAIR 2015 PROJECT SUMMARY

Name(s) Erwin Singh	Project Number 35490
Project Title Tap Water vs. Filtered Water	
Abstract Objectives/Goals My objective was to test tap water to see if there were contaminants to harm my health and compare it to the level of contaminates in distilled and filtered water. My hypothesis was If I test tap water, distilled water, and filtered water, which will I find to be best for my health. If I perform this test on multiple tap water from different sources; I can compare the result to multiple filter water subjects and distilled water from the store. I conceive there will be less contaminate in filtered water than either of the two. Methods/Materials The materials used in my experiment are water filtered with advanced carbon, distilled water purchased from the store, and multiple tap water subjects acquired from different locations. To test the water i used three PurTest Water test kits for the most accurate measure. Results After the experiment the results show that Filtered water has less chlorine and nitrates than tap water but Iron from the filter can wash into the filtered water. Distilling water may take out contaminates it can increase the alkalinity; in the data there was an outlier which in turn could have thrown off my numbers. It also makes the water have more traces of iron and copper because of equipment used in preparing distillation. My hypothesis was incorrect because I conceived filtered water to have the least contaminants but it was distilled water. Conclusions/Discussion The least contaminates out of the three was in Distilled Water but the price of distilled water is also the highest. Filtered water had less contaminates than tap water but some of the materials used in the filter could wash into the water. Tap water had no contaminate levels that were harmful to your health but it has an off taste due to the chlorine added to prevent bacteria growth. The price though is greatly varying tap water costs usually \$.0016 per gallon and distilled costing upwards \$1 a gallon. Filters can be quite pricey too running upwards \$100 dollars and having to be replaced after a period of time. In the end it comes down to what you're willing to spend and your taste preference.	
Summary Statement I tested multiple subjects of water filtered with advanced carbon, distilled water purchased from the store, and i tested tap water from three different locations; for 11 different contaminates.	
Help Received My mother helped assemble the board by cutting and pasting.	