



**CALIFORNIA STATE SCIENCE FAIR
2013 PROJECT SUMMARY**

Name(s) Whitney W. Wachtel	Project Number J1923
Project Title Water Wonder	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals Within this project, I wanted learn how Smart Water, Refreshe, and tap water affect plant growth.</p> <p>Methods/Materials</p> <ol style="list-style-type: none">1. Soil- I filled each planter to the brim.2. 27 radish seeds3. Three bottles of Smart Water4. Three bottles of Refreshe5. 105 tablespoons of tap water6. Nine planting containers7. One tablespoon <p>Results After measuring the radish seeds for five weeks, I finally came up with the averages of the radish seeds watered with Smart Water, Refreshe, and tap water. The average 'height' means how many centimeters tall the radish was from the base of the plant to the top of the radish. The seeds that were watered with Smart Water had an average height of 12.1 centimeters. The radishes that used Refreshe had an average height of 11.9 centimeters. Lastly, the seeds that used tap water had an average height of 15.7 centimeters.</p> <p>Conclusions/Discussion As a result of this experiment, I now know that tap water is the superior fluid for hydrating plants compared to Smart Water or Refreshe. The radish seeds watered with tap water grew an average of 2.52 centimeters taller than the seeds watered with other types of water. Additionally, from their physical features, I noticed the tap water radishes appeared healthier and their leaves stood erect. My hypothesis was that the different types of water would not make a difference to the radish seeds growth; however, that was proven incorrect. (The tap water seeds grew the most.) The process of growing the seeds went smoothly. In the future, I plan on growing my own flowers, and I learned for better results and to save money, I should water them exclusively, with tap water. In my opinion, tap water was the most convenient (the seeds were in pots right by the kitchen sink), and, as previously noted, it made the plant flourish. If I were to perform this experiment again, I would test the growth of plants outside, as I feel that the tinted glass window filtered out the sunlight which made them appear leggy. Additionally, I could compare the measurements of the outdoor radishes with this experiment.</p>	
Summary Statement In this experiment, I tested Smart Water, Refreshe, and tap water on radish seeds to learn how the various water affected the seeds' growth.	
Help Received Other than my mother purchasing the supplies for the lab, I had no additional help.	