



**CALIFORNIA STATE SCIENCE FAIR
2017 PROJECT SUMMARY**

Name(s) Emily M. Yu	Project Number S1916
Project Title The Effect of the pH of Water on the Height of Raphanus sativus Plants	
Abstract Objectives/Goals The objective was to determine which pH of water will cause the plants to grow the tallest. Methods/Materials To conduct the experiment, the pH of water was changed to 3, 5, 7, 9, or 11 using pH up (potassium hydroxide and potassium carbonate) or pH down (phosphoric acid). The seeds were planted then watered each their pH specific water everyday for 20 days. The height of the plants were recorded each day. Results On the last day of observations, averages from all the trials showed that plants given water with a pH of 7 grew the tallest. Conclusions/Discussion The pH of 7 was the best pH of water to help plants grow the tallest. However the results were not strong enough to conclude that the pH of the water was the sole reason for the differences in height.	
Summary Statement I found that water with a pH of 7 yielded the tallest growing radish plants.	
Help Received I performed the entirety of the project by myself.	