



**CALIFORNIA STATE SCIENCE FAIR
2016 PROJECT SUMMARY**

Name(s) Jennifer M. Cresap	Project Number 36848
Project Title Planaria: The Race to Regenerate	
Objectives/Goals The purpose of this experiment is to discover the different effects, if any, of aloe vera and caffeine on the regeneration of planaria. Methods/Materials Planaria, Aloe Vera, Caffeine, Spring Water, Petri Dishes, Dissecting Microscope, Paper, Scalpel, Sharpie, Glass Slide, Tape Results The results for aloe vera showed that the planaria did regenerate, while the results for the caffeine showed that they did not regenerate at all and many died. While the aloe vera regenerated at the same speed as the control group, the 5% and 10% solutions appeared to be healthier. The caffeine killed most of the planaria and none of them regenerated. Conclusions/Discussion When 15% aloe vera was added to the surroundings of the planaria, it appeared to be too much for the planaria. The planaria in the 15% aloe vera concentration appeared slower and weaker than the lower concentrations of 5% and 10%. In both trials all of the 0.05% and .1% caffeine planaria died. The 0.01% caffeine concentration did not regenerate fully. It is concluded that caffeine has a negative effect on planaria regrowth and aloe vera has a positive effect in the right concentrations.	
Summary Statement This project tested the effects of aloe vera and caffeine on the regeneration of planaria.	
Help Received My parents bought the materials for me and supervised my project. My science teacher provided me with a microscope and scale.	