



**CALIFORNIA STATE SCIENCE FAIR
2005 PROJECT SUMMARY**

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Project Title Planet Planaria	
Abstract Objectives/Goals The question was whether caffeine increases or decreases the total growth of planaria during their regeneration period, than if they were to be in their usual pond water. The hypothesis was that caffeine would decrease the total growth of the planaria, because it is a harmful drug. Methods/Materials To test this, 20 planaria were cut in half, and 20 of the halves were left to regenerate in their usual pond water. The other 20 were placed to regenerate in caffeine water. 40 plastic cups, 1 metric measuring cup, 20 freshwater planaria, 1 100mG caffeine pill, 2000 mL of pond water, 1 permanent marker, 1 disposable plastic dropper, 1 small utility knife, 20 petry dishes, 7 icepacks, and 1 metric ruler were the materials used to test my question. Results After 12 days of observing the planaria and recording their growth, the results showed that the untreated planaria had an average growth of 0.7mm, while the caffeine treated ones had an average growth of only 0.5mm. The results pertain to the objective because they show that planaria grow better in their usual pond water. The results also show that caffeine is harmful to planaria. Conclusions/Discussion The results did prove the hypothesis correct. I was able to attain my objective of observing what type of effect caffeine has on the growth of planaria. This experiment helps people learn more about Animal Biology because it tells us that what is stimulating to humans may not have the same effect on animals. Also, it gives us more information on how animals adapt to new environments.	
Summary Statement The project's central focus was to see whether caffeine does or does not have a stimulating effect on the generational growth of planaria.	
Help Received Mother bought the materials and HELPED cut the planaria in half	