



**CALIFORNIA STATE SCIENCE FAIR  
2003 PROJECT SUMMARY**

<b>Name(s)</b> <b>Monica R. Schmidt</b>	<b>Project Number</b> <b>J1919</b>
<b>Project Title</b> <b>Planaria: The Amazing Cross-Eyed Worm</b>	
<b>Abstract</b> <b>Objectives/Goals</b> According to the Greek legend, one of the twelve labors of Hercules was to destroy the Hydra, a gigantic monster with nine heads. He found that as soon as one head was cut off, two new ones grew in its place. For ages, people have been fascinated with the idea that lost parts of animals can be regrown. That is what my science fair project is about -- regeneration. During the experiment, the effect of different cuts on the regeneration of Planaria was examined. <b>Methods/Materials</b> Three trials of 16 cuts were performed and the results monitored over a four week period. <b>Results</b> Trial #1 had 50% of the Planaria surviving with different degrees of regeneration. Trial #2 had 75% of the Planaria surviving with different degrees of regeneration. Trial #3 had 100% of the Planaria surviving with different degrees of regeneration. After four weeks, most of the surviving Planaria were fully regenerated. The Planaria that still were not fully regenerated were the smaller cuts, #4, 7 and 8 (see research notes). <b>Conclusions/Discussion</b> Overall, I believe that the purpose of my experiment was successfully achieved. My goal was to learn about and study the regeneration of Planaria. I found my hypothesis was correct in that the Planaria cut in larger pieces regenerated faster than those cut into small pieces. However, the Planaria with cuts down the head and up the tail did not grow two heads and two tails. Instead the wounds healed and reformed back together within the first week. I believe I would need to re-cut them daily in order to keep them from fusing back together. This would be an interesting trial for a future experiment. Another interesting trial would be to determine how temperature affects the regeneration rate of Planaria.	
<b>Summary Statement</b> During my experiment, the effect of different cuts on the regeneration of Planaria was examined.	
<b>Help Received</b> Thanks to my Mom for helping with pictures and report typing and to my teacher, Ms. Asherson, for inspiring all the 6th graders on their projects.	