



**CALIFORNIA STATE SCIENCE FAIR  
2004 PROJECT SUMMARY**

<b>Name(s)</b> <b>Jillian D. Gluck</b>	<b>Project Number</b> <b>S1904</b>
<b>Project Title</b> <b>Can of Worms</b>	
<b>Abstract</b> <b>Objectives/Goals</b> I wanted to see if it mattered where a nightcrawler (earthworm) was cut in order for it to regenerate. <b>Methods/Materials</b> I cut the nightcrawlers at: 1.27cm posterior (bin 1), 2.54cm posterior (bin 2), 1.27cm anterior (bin 3), 2.54cm anterior (bin 4), approx. in half (bin 5), and a control group (bin 6). <b>Results</b> In bin 1, 78% regenerated and 22% did not. In bin 2, 33% regenerated, 44% partially regenerated, and 22% died. In bin 3, 40% healed and 60% died. In bin 4, 100% died. In bin 5, 38% of heads healed, 15% of tails healed, 62% of heads died, 85% of tails died. All worms in bin 6 were healthy. <b>Conclusions/Discussion</b> My hypothesis was incorrect. I thought that it would matter that the shorter length would matter when what really mattered was the anterior/posterior cuts. The earthworms with their posterior cut regenerated or partially regenerated. The earthworms with their anterior cut did not regenerate. This might be because they cannot regenerate a "head" or I might have cut through their hearts.	
<b>Summary Statement</b> The placement of a cut on a nightcrawler affects it's ability to regenerate the cut off portion.	
<b>Help Received</b> Supervised by teacher Ms. Batteiger and mother, mother helped cut some worms.	