

Help Received

CALIFORNIA STATE SCIENCE FAIR 2015 PROJECT SUMMARY

Name(s) Project Number Angelina J. Taylor 35730 **Project Title Planarian Regeneration Abstract** Objectives/Goals For this year#s science fair project I chose to investigate if after being cut in half bottom half of a planarian worm regenerate faster. The reason I chose this topic is because we have been learning about flatworms in science class and I found it fascinating that planarian worms regenerate. The top and bottom half may grow back at different speeds and I hope that through the project I can find out which half will regenerate faster. Methods/Materials Take 6 planarian worms and cut them in half crosswise. Put each of the halves in their own labeled petri dishes. Put the petri dishes in the refrigerator. Take the petri dishes out each day and measure the planarian worms and change the water. Return the petri dished to the refrigerator. Results Two of the head portions died early on in the experiment. Starting on day 5, I noticed the cut portion of the bottom began to round out inward toward the body. On day 13 a head began to grow from the cut portion. On the growth chart for the top and bottom portion you will see that the top portion achieved 8mm on day 9 while the bottom half did not reach 8mm on a verage until day 13. Conclusions/Discussion My hypothesis that the top potion would grow bask faster was correct based on my 14 days of measurement. The top portion grew to 8mm in only 2 days while the bottom portion took 13 days to reach 8mm. However, my hypothesis was also partially incorrect in that the bottom portion regrew the head faster than the top portion regrew that tail. I noted that the bottom portion showed signed of head regrowth starting at day 5 and fully showing at day 13. When I concluded the experiment on day 14, the top portion still had not shown signs of re-growing stail. If I would take this experiment farther I would use more worms and measure it for a longer period of time. This experiment can be useful in the real world by gaining a better understanding of the regenerative process and doctors might find ways to help people better. Summary Statement m is cut in half, will the Top Half, containing the brain, or the Bottom Half, regenerate faster? containing the tail.

I received guidelines for the project from my teacher and my dad bought materials.