



**CALIFORNIA STATE SCIENCE FAIR
2017 PROJECT SUMMARY**

Name(s) Brianne R. Conway	Project Number S2303
Project Title Animal Magnetism: A Study of the Effect of Magnetism on Planarian Regeneration Rate	
Abstract Objectives/Goals This project was designed to determine if magnetism has an effect on the rate/speed of regeneration of planarians, and whether or not magnetism does have an effect on the regeneration rate of planarians, this project could possibly reflect the effects magnetism might have on human healing speeds. It was hypothesized that magnetism would speed up regeneration rate, and the stronger the magnets, the faster the worms would regenerate. Methods/Materials Two trials were conducted, and in trial 1 three different magnet strengths were used, while in trial 2 five different magnet strengths were used. In both trials, planarians were divided into separate groups, bisected, different groups exposed to different magnet strengths, and regeneration for all worms was measured daily. In trial 1, worms were separated into four groups with one of them being exposed to no magnets, and in trial 2, worms were separated into six groups with one group exposed to no magnets. All materials were either common household objects or obtained from a commercial source. Results For both trials, worms exposed to magnets regenerated faster than worms exposed to no magnets, and the stronger the magnets the worms were exposed to, the faster the worms regenerated. It was determined that magnetism speeds up the regeneration rate of planarians, and the stronger the magnets, the faster the worms will regenerate. Conclusions/Discussion Overall, the data supported the hypothesis. These results could possibly reflect the effect of magnetism on human healing speeds. According to these results, it could perhaps be possible that magnetism can speed up healing times for humans. This project raises the question of how magnetism speeds up the regeneration rate of planarians, and if that same concept can be applied to human wound healing.	
Summary Statement This project was designed to determine if magnetism has an effect on the regeneration rate of planarian worms.	
Help Received	