



**CALIFORNIA STATE SCIENCE FAIR
2012 PROJECT SUMMARY**

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| Name(s) Sierra E. LeBeau | Project Number J1720 |
| Project Title What Laundry Detergent Is Best for the Environment? | |
| <p style="text-align: center;">Abstract</p> <p>Objectives/Goals My objective was to determine if the laundry detergent in our soil affects the life of worms (environment).</p> <p>Methods/Materials I labeled five cups for each laundry detergent (Tide and Eco-Friendly) with dilution series percentages: 0%, 25%, 50%, 75%, and 100%. The 0% had just water, 25% had 25 mL of laundry detergent and 75 mL of water, 50% had 50 mL of laundry detergent and 50 mL of water, 75% had 75 mL of laundry detergent and 25 mL of water, and the 100% had just laundry detergent. I then put 10 mL of each dilution series in each cup of soil with its correct label. In each cup I added three worms and left them in there for five days. To determine how the laundry detergent dilutions effected the environment, I recorded if the worms survived or not.</p> <p>Results In the cups with just water, all the worms survived. For the eco-friendly laundry detergent the 50% had the most amount of worms survive and the 100% had the least amount of worms survive. For the Tide, the 25% had the most worms survive and the 75% and 100% had the least.</p> <p>Conclusions/Discussion Although the most worms survived in the soil with the eco-friendly detergent, after reviewing the results, I concluded that no matter what kind of laundry detergent you use, they are both harmful to the environment.</p> | |
| Summary Statement My project is about determining if laundry detergent found in our grey water effects the soil in our environment. | |
| Help Received Mother helped proofread and correct typed mistakes; My science teacher, Kristen Hager, helped me edit my project. | |