



CALIFORNIA STATE SCIENCE FAIR 2012 PROJECT SUMMARY

Name(s) Jacen Castillo; Sophia Dela Pena	Project Number J0607
Project Title The Window to a Spider	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals Our main objective is to see a clear anatomy of a spider and finding out which solution would show the best translucency of a spider under a microscope after soaking them in different solvent or solution after a period of three hours.</p> <p>Our hypothesis is that alcohol would show the best translucency of a spider after being soaked for a period of three hours among other solutions used without damaging its body parts.</p> <p>Methods/Materials The materials we used in this experiment are: 14 spiders, 10 ml of the solvents and solutions alcohol, ammonia, bleach, lemon juice, polish remover, vinegar, 6 test tube vials, 6 plain glass slides, 1 plastic transfer pipet (dropper), 1 pair of forceps, digital microscope, and a laptop.</p> <p>The methods we used to perform this experiments are: examining spiders soaked in different solutions and checking them every 20 minutes for a period of three hours, looking at the spiders under a microscope to see their internal body structures, and taking digital pictures of the spiders with our digital microscope hooked up to a laptop.</p> <p>Results After soaking six spiders in six different solutions for three hours and taking them out of the test tubes and placing under a microscope, we found out that alcohol proved to be the best solution to use to show the translucency of the spider. Surprisingly, bleach disintegrated/dissolved the spider. Lemon juice made spider moderately distinct while vinegar, ammonia, and polish remover had no effect at all on the spiders.</p> <p>Conclusions/Discussion Our hypothesis is correct. We were able to prove that the alcohol showed the best translucency of a spider among all solutions used. It also gives a distinct appearance of the spider's internal body structure without damaging it.</p> <p>Although we were able to find out which solution would show the best translucency of the spider, we were disappointed not to be able to distinguish and differentiate the internal body organs of the spiders with the microscope we used. We feel that we needed a better microscope magnification and a better alcohol concentration to be able to pin point one organ from the other.</p>	
Summary Statement Our project is about finding out which solution or solvent would show the best translucency of a spider to see its internal body structure after soaking it for three hours.	
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