



CALIFORNIA STATE SCIENCE FAIR 2004 PROJECT SUMMARY

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| Name(s) Ian B. Cawelti | Project Number J1105 |
| Project Title Regular Wood vs. Recycled Wood | |
| <p style="text-align: center;">Abstract</p> <p>Objectives/Goals My objective was to test Trex and Evergrain, which is a manufactured wood product that is half plastic and half wood, and Redwood, which is a natural wood product, against Fire, Acid Rain, and Exposure to the elements, to find out which one will be a better building material in the future, when we have less wood.</p> <p>Methods/Materials For my experiments, I used Trex, Evergrain, and Redwood samples, vinegar, a timer, spray bottle, a notebook, and materials to make a mini deck. The method for the Fire test: I built a mini deck and lit that along with the samples on fire, and I let it burn for 10 minutes, and I recorded what happened. The method for the Acid Rain test: I put vinegar in a spray bottle, then I sprayed the samples for 30 seconds every 5 minutes for 30 minutes. Then I observed what happened and took pictures every 10 minutes. The method for the Exposure to the Elements test: I put the samples outside, then I left them there from December 28, 2003 to January 19, 2004, and I recorded my results every day.</p> <p>Results The results for the Fire test: Trex and Evergrain were totally destroyed, Redwood was damaged, but not destroyed. The results for the Acid Rain Test: Trex was affected most by the acid, followed by Redwood, Evergrain was not affected at all. The results for the Exposure to the Elements Test: Redwood darkened, then came Trex which bleached moderately, then came Evergrain which changed slightly if anything at all.</p> <p>Conclusions/Discussion In conclusion, Several conclusion can be reached from my experiments. Looking from the Environmental side, Redwood and Trex would be the best because they are quicker to decompose if natural disasters occur. Redwood being natural wood and Trex being more wood than plastic, they leave less plastic residue than Evergrain. Looking at a long lasting building material, Evergrain is best because of its ability to withstand weathering and chemical exposure. My conclusion would have to be Trex because even though it turned to dust in the fire test, it was in the middle in the Element and Acid Rain Tests. It even looked better when it turned to its final color in the Elements test.</p> | |
| Summary Statement My Project is about what will happen in the future when we run out of wood, what material will we build with. | |
| Help Received My dad helped me the most with this project, Page Kinkade: Materials Purchasing Agent of Hayward Lumber in Pacific Grove, and Hayward Lumber of Pacific Grove for giving me samples of Trex and Evergrain. | |