



CALIFORNIA STATE SCIENCE FAIR 2010 PROJECT SUMMARY

Name(s) Camille M. Furby	Project Number J1112
Project Title Recycling Paper Products	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals Each type of paper: newspaper, copy paper and magazine paper was shredded into 2 cm. pieces and blended into paper pulp and then tested them for strength and quality. I did this because 40% of our landfill space is made up of paper and I wanted to try to reduce that amount by finding an efficient way to use certain types of paper for different uses.</p> <p>Methods/Materials Materials: blender, 3 ten gallon plastic tubs, stirring stick, shredded paper (newspaper, magazine, and copy paper), mold and deckle, sponge, absorbent cloth, candle wax, quarters, water dropper and water. Procedures: 1. Shredded each type of paper and let them soak in 3 gallon plastic tubs. 2. Separately blended each type to an oatmeal consistency. 3. Placed paper into separate bins. 4. Stirred up each type of paper and carefully placed the mold and deckle into the pulp. 5. Covered the top of the screen evenly with pulp. 6. Removed the mold and deckle, placed it on an absorbent cloth and let dry. 7. Couched the paper, removing all excess water. 8. Removed the paper from the screen, and left it completely dry. 9. Tested it for strength and quality. Strength: I dropped 10 drops of water in the center of the paper and began to stack quarters on the wet area. The point of this was to see how many quarters it took for the paper to break. Quality: I took a candle, dripping even amounts of wax on the paper. When it hardened, I tried to peel the wax from the paper. If the wax separated, without tearing the paper, it showed that the paper was not too thin and would be good for drawing or writing.</p> <p>Results I found that magazine paper proved to be the strongest. This is because magazine paper is made with a clear Chinese coating called Kaolin, which didn't dissolve during my recycling process, and made the paper strong. For the best in quality, newspaper was best because the texture was smooth and writing/printing would be easier.</p> <p>Conclusions/Discussion I concluded that magazine paper proved to be the strongest and newspaper proved to be the best in quality. I realized how hard it was to make paper, how many trees we use to make paper, and what kind</p>	
Summary Statement My science fair project is about recycling paper and finding which types of paper would be best suited for different purposes so we can try to reduce paper waste.	
Help Received My grandfather helped me build the mold and deckle for making my paper, my science teacher explained to me how to do the project, and my mother helped me test my paper.	