



**CALIFORNIA STATE SCIENCE FAIR
2006 PROJECT SUMMARY**

Name(s) Janeen A. Tugas	Project Number J0820
Project Title Determining the Effectiveness of Polymers in Absorbing Hazardous Materials	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals To determine if polymers are an effective way to pick-up (absorb) hazardous materials. To determine if you can clean up and dispose of hazardous materials using the polymers.</p> <p>Methods/Materials 3 trials were made 1,2,3. 3 groups were made A,B,C. In each group 2 tablespoons of each absorbent were put in its group(A-polymer,B-Cat Litter,C-Super Absorbent). My materials were the 3 absorbents for it's group, 350 grams of Anti-Freeze, 200 grams of sand, 1 grams scale, and 1 mesh screen. After everything was in the 9 cups, I set it out for 1 week. Then after the 1 week wait, I measured how much Anti- Freeze was absorbed with a grams scale. In group A I had to separate the polymer from each other. In groups B and C, I separated the Anti- Freeze from the absorbent with a mesh screen.</p> <p>Results My results showed that the polymer absorbed the most, without leaving any drops. Groups B and C had the same amount absorbed. Group A weighed 380 grams. Groups B and C only weighed 360 grams. Group A took 5 days for the Anti- Freeze to absorb it all. Groups B and C absorbed as much as it could in a little amount of time. If I had combined B and C's leftover Anti- Freeze together, it would if took 3 cups of Cat Litter and Super Absorbent to absorb it all.</p> <p>Conclusions/Discussion Since now i found out that polymer absorbs the best, it could help our environment. The way how we could do that is to put the polymer into a contaminated area and see if it could absorb it well. Then dispose it properly.</p>	
Summary Statement To see how polymers can effectively pick up hazardous materials to help our environment.	
Help Received Dad supervised while I conducted experiment. Teacher helped with writing.	