



**CALIFORNIA STATE SCIENCE FAIR
2003 PROJECT SUMMARY**

Name(s) Rebecka L. Miller	Project Number J1526
Project Title Which of Six Fabrics Is the Best Insulator?	
Abstract Methods/Materials My experiment invoved boiling 21 cups of water to the temperature of 100 degrees Celsius. Then, I poured three cups of the 21 cups of boiling water into seven 750 ml jars. Each jar was covered with one of the six fabrics being tested. Every 15 minutes for two hours, my assistant and I checked the temperature of the water in each jar. The temperatures were recorded to the nearest tenth of a decimal point to make it exact. Some other materials not mentioned yet are 5 sqare inch pieces of foil, pieces of tape three inches long,sauce pans, measuring cups, pitcher's, a timer, a stove, rubber bands, thermometers, 7 jars, and six different types of white fabric. Results The results of my experiment did not support my hypothesis. Rather they showed that felt insulated the heated water best, preventing the lowest amount of temperature loss. My hypothesis was that the flannel fabric would be the best insulator, though it was false. In addition to felt being the best insulator, people could use the information gained from this project to now which fabric would keep them warmest in the cold. Conclusions/Discussion The experimental data did not support my hypothesis, indicating that it should be rejected. According to the results of this experiment, felt was the best insulator, then came flannel,acetate, rayon, cotton, polyester, and in last came the controljar which had no fabric around it.	
Summary Statement My project is to determine which of six different, white fabrics insulates heated water best.	
Help Received Teacher Mr. Scott helped with graphs; Mother edited project report	