



**CALIFORNIA STATE SCIENCE FAIR
2006 PROJECT SUMMARY**

Name(s) Kristen Reynier; Spencer Shoemaker	Project Number J1533
Project Title What's Hot? What's Not?	
Abstract Objectives/Goals The objective is to determine which material will insulate heat best out of wood, polystyrene or aluminum foil. We believe that polystyrene will be the best heat insulator. Methods/Materials Our experiment had three identical boxes, three identical jelly jars, three identical thermometers. The insulators that we used were common wood chips, aluminum foil, and polystyrene packaging. 200 degree water was poured into each of the jelly jars surrounded by each of the insulators and the temperature was recorded in equal time increments up to 90 minutes. Results It was found that of the three insulators polystyrene was shown to be the best insulator under these conditions. Conclusions/Discussion We concluded that our hypothesis was correct. The polystyrene insulated hot water better than aluminum foil or wood. This is due to the fact that polystyrene is a closed cell material that resists moisture and other things that may cause the temperature of the water to decrease.	
Summary Statement Which material insulated heat best, polystyrene, wood, or aluminum foil?	
Help Received Our parents, Kevin and Pam Reynier and Steve and Teresa Shoemaker, Jim Kapin, and Jerry Reinen	