## Which Fabric Best Retains Heat?

### Abstract

**Objectives/Goals**
To find the fabric that would retain body warmth best, over a period of time.

**Methods/Materials**
Four identical cardboard cups, each with a different fabric wrapped over the cup opening and secured with a rubber band, was filled with hot water at an approximate temperature of 160 degrees Fahrenheit. Each cup had a thermometer sticking out of it, and I recorded the temperature of each cup every 10 minutes. The control cup opening was left uncovered and it too had a thermometer.

**Results**
Wool and nylon had the highest temperatures throughout the tests while the control, cotton and silk had lower temperatures.

**Conclusions/Discussion**
It is best to wear either wool or nylon clothing during cold weather because they will retain a body’s heat better than cotton or silk.

### Summary Statement
I conducted three independant tests, on four different types of common clothing fabric to determine which fabric would retain heat best over a 90 minute period of time.

### Help Received
Mom helped purchase materials needed.