California Science Center

CALIFORNIA STATE SCIENCE FAIR

2001 PROJECT SUMMARY

Your Name (List all student names if multiple authors.)

Steven B Zabielskis

Project Title (Limit: 120 characters. Those beyond 120 will be ignored. See pg. 9)

Which Material is the Most Effective Thermal Insulator?

Science Fair Use Only

S0922

Division

S Junior (6-8) S Senior (9-12)

Preferred Category (See page 5 for descriptions.)

9 - Fluid Mechanics/ Aerodynamics/ Thermophysics

Abstract (Include Objective, Methods, Results, Conclusion. See samples on page 14.)

Use no attachments. Only text inside these boxes will be used for category assignment or given to your judges.

My project was designed to see which material, foam insulator, aluminum foil, cotton cloth, or rubber tube is the most effective thermal insulator. I wrapped each material around the same container, put in 100 degree celsius water, and measured the temperature of the water every 2 minutes for 24 minutes. I repeated this with 1, 2, and 3 layers for each material. I found that the foam was the most effective material because it had the highest temperature water at the end, and lost the lowest percentage of heat compared to previous readings.

Summary Statement (In one sentence, state what your project is about.)

My project is about thermal insulation materials.

Help Received in Doing Project (e.g. Mother helped type report; Neighbor helped wire board; Used lab equipment at university X under the supervision of Dr. Y; Participant in NSF Young Scholars Program) See Display Regulation #8 on page 4.

My dad helped set up the experiment.