



**CALIFORNIA STATE SCIENCE FAIR
2009 PROJECT SUMMARY**

Name(s) Curtis M. Siegfried	Project Number S1718
Project Title The Penetration Ability of Tinea corporis (Ringworm) in Two and One-Half Hours	
Abstract Objectives/Goals I am a wrestler, and in the past I have been infected with Tinea corporis (ringworm). The purpose of this experiment was to determine if ringworm could penetrate through a bandage in two and one-half hours. If a bandage successfully prevents the spread of ringworm, wrestlers can practice without fear of infecting practice partners. Methods/Materials Ringworm is considered potentially dangerous, therefore I used Aspergillus niger. I created four groups of five plates. The first group was Sterile Petri dishes, the second group was Potato dextrose agar, the third group was Potato dextrose agar with 10 mm ² of Aspergillus niger, and the fourth group was Potato dextrose agar with 10 mm ² of Aspergillus niger and a bandage covering the Aspergillus niger. I let the plates sit for two and one-half hours then measured the amount of fungus on them using a microscope and caliper. Once I had my data, I ran an ANOVA test on it. For statistical reasons, I repeated this procedure thrice. Results The Aspergillus niger grew under the bandages and on the plates without a bandage; based on the ANOVA test there is at least a 14.99% chance that it will grow if I repeated the test. The Aspergillus niger did not grow through the bandages, therefore there is statistically a 0% chance it will grow through a bandage if I duplicated the test. Conclusions/Discussion Therefore, I concluded that Tinea corporis would grow in size under a bandage but not grow through the bandage, infecting a wrestler's practice partner.	
Summary Statement The prevention of the spread of Tinea corporis (ringworm).	
Help Received My parents proofread the report; my Biology teacher supervised the experiment; school AP Statistics teacher helped analyze the data.	