



**CALIFORNIA STATE SCIENCE FAIR
2003 PROJECT SUMMARY**

Name(s) Natasha N. Jundt	Project Number S1314
Project Title Mold Transference: Does Mold Transfer from One Building Material to Another When Subjected to Varied Conditions?	
Abstract Objectives/Goals The objective of my experiment is to determine whether or not mold will transfer from one building material to another, and if it will, what conditions will create the best climate for transference. I believe that mold will transfer, however only when there is a sufficient amount of moisture (water) and air movement. Methods/Materials Before beginning my experiment I built ten separate test boxes, each which would include three samples separated by dividers. Next, in order to meet the required safety precautions I constructed a pressurized, two-roomed test chamber. Finally, I tested the samples in a variety of different conditions, which included each of the following, both with and without air movement: 1) raised humidity, 2) dry, 3) water added to drywall, 4) water added to wood, and 5) water draining from wood onto drywall. Through observations and studying patterns of analyzed tape lifts I was able to draw several conclusions. Results The project results demonstrated that mold does transfer primarily by moisture and secondarily by air movement mainly when dry conditions are present. Conclusions/Discussion My hypothesis was confirmed, "I believe that mold will transfer, however only when there is a sufficient amount of moisture (water) and air movement." One unexpected result was that when excess moisture (standing water) was present mold did not grow under the water; instead it grew at the perimeter edge. This is important because it helps define that if there is too little or too much moisture, mold growth can be reduced or controlled.	
Summary Statement My project demonstrates that mold transfers primarily within a limited range and by controlling the moisture source, mold growth can be reduced or eliminated on building materials.	
Help Received Forensic Analytical analyzed tape lifts and cultured swab samples; Dad helped with power tools	