



**CALIFORNIA STATE SCIENCE FAIR
2003 PROJECT SUMMARY**

Name(s) Greg A. Passani	Project Number J1716
Project Title Biometrics: Facial Recognition	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The project objective is to determine whether it is easier to recognize a familiar face by looking at a photo showing the top half of the face versus the bottom half.</p> <p>Methods/Materials Parental permission was obtained. I took facial photographs of twenty-one students in my seventh grade class with a digital camera. I downloaded the data into a computer and used photo editing software to crop each photo into a top half and a bottom half. These images were sized, labeled, and organized into two sheets. Twenty-two students were asked to match each image to the subject's name.</p> <p>Results The students could identify the top half of the faces ninety-eight percent of the time, but the bottom half only ninety percent of the time.</p> <p>Conclusions/Discussion It is easier to recognize someone by looking at a photo of the top half of their face rather than the bottom half.</p>	
Summary Statement The process of facial recognition was investigated by comparing the ability of students to correctly identify their classmates by looking at photos showing only the top half or bottom half of faces.	
Help Received My aunt contributed a digital camera. Mrs. Bown-Crawford recommended the photo editing software. My sister Celeste helped me install the program. My parents taught me how to make folders and organize files on the computer. They proofread some of my work.	