



**CALIFORNIA STATE SCIENCE FAIR
2012 PROJECT SUMMARY**

Name(s) Sophia A. Walker	Project Number J0732
Project Title The Memory Game	
Objectives/Goals How accurate is eye witness testimony. The hypothesis for this experiment is that eyewitness testimony will not be accurate because memory is not an exact science.	
Abstract	
Methods/Materials Materials: 1) A volunteer to act as the criminal; 2) Clothing selected for the individual to wear; 3) A script for the volunteer; 4) An item for the criminal to take during the experiment. (same item must be used for all the trials); 5) A photo of the individual that participated in the experiment and two other photos to use in photo line up. A total of three photo#s of individuals dressed similar for witnesses to identify the criminal; 6) A questionnaire with multiple choice questions about the incident and the criminal. Procedures: 1. Write script for the actor to follow during the experiment. 2. Select clothes for the individual to wear and/or items to carry. 3. Make photos of the clothes, apparel and items carried by the actor. 4. Select item to be stolen. 5. Make photos of the item that is being stolen. 6. Complete questionnaire. 7. Make arrangements with school for actor to enter three classrooms on the same day. 8. Immediately after incident, pass out the first questionnaire to all 87 students. 9. Two week after the incident I will pass out a second questionnaire, with photo line up attached. 10. Three weeks after the incident I will pass out a final questionnaire, with photo line up attached. 11. Compare results of the students from each of the total 284 questionnaires.	
Results Over all, only one subject consistently answered every question correctly. By percentage, the 10 year olds were the most accurate in the line-up at 92%; then 14 years olds at 85%; 11 year olds at 68%; 12 year olds at 59% and 13 year olds at 38%. In the first trial only 4.26% of the eye witnesses identified that the intruder wore a ski cap, in the 2nd trial that dropped to 3.48%, in the final trial it dropped to 0.77% (less than 1%). Where as 12.40% of eye witnesses identified grey hair in the first trial, it dropped to 11.62% in the second trial and jumped to 17.05% in the final trial. Combining all data such as hair color, eye color, and clothing the overall accuracy dropped below 50% and in some cases below 30%.	
Conclusions/Discussion The experiment supported the prediction that eyewitness testimony would not be accurate. Based on the data collected, inconsistencies were staggering between eyewitnesses individual questionnaires and overall data.	
Summary Statement This project is a study of the accuracy of eye witness testimony over time.	
Help Received Mom helped paste together my board. Mr. Hobbs helped coordinate the crime during school.	