



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

Name(s) Angela R. Balestreri	Project Number J1701
Project Title Does Birth Order Affect Personality?	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals This project was the study of how ones birth order affects ones personality traits, or ones tendency to do particular things. My hypothesis was that birth order does have an impact on personality, and when testing, each subject would score within his or her actual birth order.</p> <p>Methods/Materials Two different tests were used to complete this project. The first was somewhat of a failure while the other proved that birth order has an affect on personality. The first test failed because I simply asked the subject if they were for example: organized, somewhat organized, or unorganized causing their results to be very inaccurate. As a result, 90% of the subject fell into the "neither category." By these results, I created a second test showing examples of when one would posses certain qualities (in what conditions). I handed 65 of these tests out to the first and second- borns in the family. The subject's ages ranged from 10-18 years old and the majority were females. The second test consisted of 19 questions, pertaining to the qualities of a first and second-born. All questions that were answered representing second-born qualities were worth 1 point. All questions answered representing first-born qualities were worth 3 points. There was also an in between answer worth 2 points that showed neither qualities of a first nor second-born. In the end, if ones points added up to a range between a 19-36, one had the qualities of a second-born; 37-42 indicated that one showed neither qualities of a first nor second-born; 43-60 specified that one posses qualities of a first-born.</p> <p>Results I used the results of my second test (because they were much more accurate) to come a to valid conclusion. Only about 29% of my subjects scored within the "neither category;" The other 71% of my subjects succeeded in scoring within their actual birth order.</p> <p>Conclusions/Discussion I concluded my project by stating that through studying, and from testing, birth order does in fact have an impact on personality. This supported the first part hypothesis, which was that birth order does affect personality. Before, I did not take into consideration that people grow up in different lifestyles that can affect this, which is why the second part of my hypothesis was incorrect. In the second part of my hypothesis, I stated that no one would fall in the "neither range," but I found from my results that many people did.</p>	
Summary Statement This project was the study of birth order and how it affects personality	
Help Received My Mother helped glue down my board and type my test	



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

Name(s) Madeleine S. Burnette-McGrath	Project Number J1702
Project Title Poky Parking: Does It Take Longer to Vacate a Parking Spot When Someone Is Waiting? Perception vs. Reality	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals To determine: (1) PERCEPTIONS -- (a) if people think OTHERS take longer to leave parking spots when they wait, and (b) if they think THEY themselves take longer to leave when others wait, and (2) REALITY -- whether it really takes longer for a car to leave a parking spot when someone is waiting.</p> <p>Methods/Materials (1) MEASURED PERCEPTION: Wrote and administered three different types of surveys to a total of 300 licensed drivers. Methods included: multiple-choice and open-ended questions, varied the order of choices, used single-subject surveys. (2) OBSERVED REALITY: Observed 400 parking situations (200 no waiting; 200 waiting) in 10 parking lots. Recorded time on log sheets, from when driver first touched the car until vacated spot. Recorded other variables: driver's gender, loading packages, number of passengers, helping babies/toddlers.</p> <p>Results (1) PERCEPTION: (a) Perception-of-Others: 39.5% of survey Respondents think others take LONGER, 39.5% think the same time, 21% think others leave faster when they wait. (b) Self-Perception: a mere 2.5% think they take LONGER, 25.5% think the same time, and a 72% think they leave faster when others wait. (2) REALITY: It takes a car an extra 11.1 mean seconds (19.9% longer) to leave a parking space if someone is waiting. That result is true of both men and women, regardless of number of passengers, loading of packages, or babies/toddlers. Perceptions, especially self-perceptions, do not match reality.</p> <p>Conclusions/Discussion People think they and others try to rush in parking lots, but it really takes longer for a car to leave when someone is waiting. This subject affects millions of people a day who park in parking lots, and it shows that a common perception is incorrect. This experiment reveals information we cannot find elsewhere in available publications, so it is providing new knowledge. With these results, we can take the next scientific step to explain WHY it takes extra time. We could also use the results to teach people to be more patient in parking situations.</p>	
Summary Statement People generally PERCEIVE that it takes the same or less time, but it REALLY takes LONGER, for a car to vacate a parking spot when someone is waiting.	
Help Received Moorpark College students (282) and neighbors (12) took my surveys; mother helped type report and drove me to parking lots; two psychologists suggested ways I might find previous research on subject.	



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

Name(s) Emma M. Carson	Project Number J1703
Project Title Praise vs. Prize	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals My objective was to find out what promotes the cooperation of four-year-olds in completing a task, praise or a prize. My hypothesis was that praise would be more effective.</p> <p>Methods/Materials Two groups of four-year-olds were tested in their familiar preschool environment to see how quickly each child individually could complete a given task. The task was to match different shaped blocks (square, circle, rectangle, and triangle) on a board that had those shapes outlined in black. Each child was timed and the time recorded on a form. One group was given only praise during the task assignment while the second group was told in advance that they would receive a prize (stickers) in return for completing the task quickly. The praise group was not informed about the prize group nor was a prize discussed with them at any point during the orientation or the task timing. The groups were both tested in the same location, outside the classroom door at a quiet table with minimal distraction. There were sixteen children in each group. Participation was voluntary. The teacher asked for volunteers after the task was described. The children took turns completing the task but no child watched any other children during the task testing. All the children were in the same level class with the same birthdate cutoff for the four-year-old room. The birthdays were recorded as well to rule out age as a prime factor in speed of task performance.</p> <p>Results Praise ended up being a more effective motivation tool than prizes. The praise group's average was one minute (1:00) while the prize group's average was one minute fifteen seconds (1:15). Age did not prove to be a major factor. Male and female times only differed by a few seconds, not significant enough to be a determining factor.</p> <p>Conclusions/Discussion The results of my research supported my hypothesis that praise would be more effective at motivating the children and promoting cooperating with respect to the given task.</p>	
Summary Statement My project was to find out if praise or prize was a better motivator in promoting cooperation in four-year-olds.	
Help Received Diane Claridge, Director of Growing Place Preschool, allowed use of facility and gave reading material. My mother helped contact the preschool and transported me to the preschool so I could test the four-year-olds.	



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

Name(s) Andrew C. Donabedian	Project Number J1704
Project Title Does Gender Affect Color Preference?	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The objective of my project was to find out if the gender of a person plays a role in his or her color preference between the colors blue, yellow, or red.</p> <p>Methods/Materials A questionnaire was prepared and distributed to 300 students in grades 2-5, 150 boys and 150 girls. It asked which of the three color choices each student liked best, and if they were a boy or a girl. The questionnaires were then randomly seperated into three groups of 50 boys and 50 girls each, and the results were tallied.</p> <p>Results In Experiment #1 and Experiment #2, both boys and girls chose the color blue most often, then red, then yellow. In Experiment #3, the boys chose the color red most often, then blue, then yellow. The girls continued the previous pattern of blue most often, then red, then yellow.</p> <p>Conclusions/Discussion I would have to conclude that gender does not affect color preference, due to the fact that, overall, both boys and girls chose the color blue most often, then red, then yellow.</p>	
Summary Statement My project is about finding out if boys and girls have different color preferences.	
Help Received Thirteen teachers at Ridgemoor Elementary allowed their students to answer my questionnaire. My Mom helped me glue things neatly on my board.	



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

Name(s) Ilyssa R. Espiritu	Project Number J1705
Project Title "Excuse Me, Do You Have the Time?" Responses Recorded Dressed as a "Tomboy" as Opposed to a "Young Lady"	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals My objective is to prove when I ask people at a shopping center for the time, I think more people will respond to me differently dressed up as a "tomboy" as opposed to a "young lady."</p> <p>Methods/Materials For my experiment, I chose to video the responses of people as I asked my question to help document my data. I chose a "tomboy" outfit and a "young lady" outfit. My mom ran the video camera as I collected the responses from people. For the two days of collecting information, I chose the same time of day to ask people for the time while dressed in the different outfits. A popular shopping center was chosen for my project. The duration of time spent asking a total of 50 people my question was 45 minutes each day.</p> <p>Results People were willing to help me and put forth an extra effort to answer me, while dressed as a "young lady". People actually stopped, made eye contact with me, and pleasantly answered my question. Two people offered me a ride and the use of their cell phone. As people were driving by, I received a lot of smiles and one man who did not have his watch with him earlier, drove by me and told me the time. While dressed as a "tomboy" however, people would not make eye contact with me and they would answer me as they were walking away from me. I received five "no responses" dressed as a "tomboy". My graph indicates the numbers of people in the categories titled: "Helpful", "Extremely Helpful", "Asked a Question", "No Response", "Impatient Response" and "No Eye Contact".</p> <p>Conclusions/Discussion I thought that I would be treated differently dressed as a "tomboy" vs. a "young lady", and I was correct! I realize and appreciate the genuine concern shown by people who wanted to help me when I was dressed as a "young lady". In contrast, I felt uncomfortable and insecure when people were impatient and seemed to look down on me, dressed as a "tomboy". What a difference clothes make! In conclusion, I learned an important life lesson. People should not judge or treat others by the way they look on the outside! but, unfortunately, people do. I was the same girl asking a question, but only wearing different clothes. Because of this project, I am now more aware of how to respond to others, regardless what they look like and hopefully you will be enlightened too!</p>	
Summary Statement My project proves that people responded differently to me when dressed as a "tomboy" vs. a "young lady".	
Help Received My mom helped type report. My mom ran the video camera. Used a media store to edit film.	



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

Name(s) Zachary A. Foisie	Project Number J1706
Project Title Pirates of the Pavement: Car Color and Dangerous Driving	
Abstract Objectives/Goals Is a certain color of car more likely to be driven unsafely? The reason I chose speed and stopping patterns was because it could be most objectively measured and it was the safest and easiest way to measure. I could sit on the freeway to measure following too closely or unsafe lane changes, so I chose speed and stopping patterns, so I sit on a city street, to conduct my experiment. Methods/Materials Two different factors were used to test unsafe driving - speed and stopping at stopping signs. Nine colors of cars were selected to observe driving safety: silver, red, white, tan/beige, brown, black, green, blue and yellow. I selected Carlson Blvd in Richmond as the location to observe speeding cars. I noted the posted speed limit as 35 mph. Using a radar gun, I recorded the color of car and the speed for those cars traveling over the speed limit. I selected two four-way intersections with stop signs, and observed the color of each car and their stopping patterns. Results I observed a total of 340 speeding cars. The result of the speed test indicated that black, silver, and blue cars, in that order, had the highest average speed. Out of 993 cars observed at the intersections, 341 cars did not stop at the stop sign. 50% of yellow cars did not stop, followed by 38.3% of blue and silver cars. Conclusions/Discussion The data supports my hypothesis by concluding that the color of the car a person drives is linked to how unsafely they operate the car. Areas for future research would include looking at gender, age, vehicle size, model, and age of vehicle.	
Summary Statement Is the color of the car a subject drives linked to unsafe driving behaviors?	
Help Received Mom helped me type the report. I borrowed a police "radar gun" from my Dad.	



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

Name(s) Katharine K. Gifford	Project Number J1707
Project Title Slow Down, You Move Too Fast: A Study of Speeding on Woodside Road	
Abstract Objectives/Goals My objective was to learn what elements of nature and human activities have an affect on the speed people drive and in what ways. Methods/Materials I used a radar gun to measure the speeds of 650 cars which passed my house at 7:30 a.m., 9:30 a.m., 12:30 p.m., 3:30 p.m., 5:00 p.m., 6:30 p.m., and 8:00 p.m. Each time I collected 25 speeds and I did a total of 25 tests. Results I found that many thing do change the speeds people drive past my house and school. While school was getting in, only four percent of the passerbyers sped. Having kids around was bassicly the only thing that slowed people down. When it was dark and on the weekends, people sped a very noticable amount more. Conclusions/Discussion I was right about many of the things I thought would affect people's speeds. One thing I wish I could have found was wether rain had an impact. During the time when I did my tests, it hardly ever rained and when it did, I was either sleeping or in school. A few times the roads were wet however this didn't seem to have a big impact on drivers.	
Summary Statement My project was about the elements which affect the speed people drive.	
Help Received My dad gave me the spark that led to the ideaof my project as well as teaching me how to use Microsoft Excel to analyze my data; My mom helped me with the display of the board; My brother helped me record data in the first few tests	



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

Name(s) Jodi L. Grinsell	Project Number J1708
Project Title The Little Piggies That Didn't Come Back from the Market	
Abstract Objectives/Goals Determine the effects, both short and long-term, of Antiphospholipid Antibody Syndrome on an otherwise healthy, athletic twelve year-old patient. I am not sure her, my, life will ever be the same. Methods/Materials I will follow a healthy, athletic twelve year-old girl from her first symptoms, through misdiagnosis, to the correct diagnosis of Antiphospholipid Antibody Syndrome and it's repercussions. I will document the time line and the emotional effects from the discovery of blood clots to amputation while outlining some background information on APS. Will her life ever be the same again? Can she still be the athlete she once was? Results Because it took the doctors over two months to correctly diagnose Antiphospholipid Antibody Syndrome, the formed blood clots in the right femoral artery restricted blood flow to the right foot and toes, which eventually led to the amputation of two and one half toes. Blood thinners, Coumadin, were introduced to prevent more clots. The patient returned to school after four months and was able to resume an almost normal life, minus the toes of course. Conclusions/Discussion Waiting for the toes to self-amputate was painful in many ways. Life will go on with some changes and restrictions due to the loss of toes and the introduction of Coumadin to prevent further clotting. Once the patient knew what she had left, she could move on. Learning about APS, has helped me to understand my disease and better prepare for what is still ahead. There is no normal in life; it is what you choose to make it.	
Summary Statement The Effects of Antiphospholipid Antibody Syndrome on Jodi Grinsell	
Help Received Mother helped taking pictures and with some typing	



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

Name(s) Travis S. Khachatoorian	Project Number J1709
Project Title Middle School Intolerance	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The objective of this project is to learn what my middle school's greatest prejudice is.</p> <p>Methods/Materials Procedures: 1. Research prejudice and get ideas for questions to ask on test 2. Design test, making it not obvious to a moral response. 3. Print enough copies for each student in your middle school to take 4. Talk to teachers and plan a good free time for students to take test 5. Pass out tests to students 6. Collect all finished tests from teachers. Materials: Pencil; Paper; Notebook; Calculator; Enough survey forms for everyone in your middle school.</p> <p>Results Every individual class had different results but all together I discovered that style is what these people prejudice the most. Weight and homosexuality came in a close second and third, but religion and middle-eastern society apparently isn't what the middle school kids prejudiced against.</p> <p>Conclusions/Discussion Results proved my hypothesis to be incorrect. It turns out that instead of homosexuality being the biggest overall prejudice in our school, it is style. Although the seventh grade results did show that homosexuality was the greatest bias that they witnessed, it was not the case in the other grades. This project taught me a lot about people in general. It showed that everyone has there own prejudice, with some greater than others. The answers people wrote also showed me that even though I don't see some of these things demonstrated, they still go on. The project also taught me the vast difference in ideas between grade levels. What I liked best about this project was the element of surprise. When I tallied the votes, I assumed that everyone would have the same opinion as me. I was stunned to see that my ideas were dominated by other prejudices. This project doesn't need any changes, but if I had to think of one it would be to add another question on the survey that specified the person's sex. With this information I could have come up with more graphs that specified differences between male and female. This would show the different ways of thinking between the two genders. I think this project helps humanity in the sense that people now can figure out prejudices in their community and stop them earlier. Hate crimes could be reduced significantly. I will end this by saying that everyone has prejudices, we just need to recognize these and learn to accept the differences of others.</p>	
Summary Statement This project is to determine the greatest prejudice in my middle school.	
Help Received Father helped spray paint the board; Mother helped tally all of the surveys.	



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

Name(s) Michelle S. Kwon	Project Number J1710
Project Title A, B, C As Easy As 1, 2, 3	
Objectives/Goals My objective is to find out which child, born into an immediate family, has the highest GPA.	
Methods/Materials There were three materials need in my experiment: a. A survey that collected information on the subject's birth order, gender, handedness, ethnicity, etc. b. A computer, so that I could record all the data and create graphs and charts to further interpret my results. c. Lastly, I needed a manila folder. This folder was needed so I could collect the testing subject's survey. That way it is almost impossible to match whose survey goes to whom.	
Results The eldest has the highest GPA (4.08). The second child has the second highest GPA (3.88), the third child had the second lowest GPA (3.75) and the fourth born had the lowest GPA (3.62). Only Childs had a GPA of 4.05. For sociability, the trend went the opposite way. The fourth child was at a 9.4, thirdborns were at a 9.09, secondborns were at a 8.3, firstborns were at 7.75, while only children were at a 6.9. Academic importance also had a strong correlation showing that as you move lower down the rank of birth order the lower the score would be (1st=9.47, 2nd=8.14, 3rd=7.9, 4th=7, and only child=9) This correlation was also shown in the hours spent studying. (1st=8.35, 2nd=6.04, 3rd=5.36, 4th=4.2, and only child=7.6) Right handed individuals were shown to have generally performed better at school verses left handed individuals. (average GPA R=4.0, L=3.88) There was no discrepancy between genders. The average GPA of males was 3.86 while the average GPA of females was 3.9	
Conclusions/Discussion My conclusion is that birth order does affect GPA, and that the lower one ranks on birth order, the lower one's GPA is likely to be. Also, individuals with no siblings display on average a higher GPA than others who are 2nd, 3rd, 4th born in families with multiple children. I also conclude that left handed individuals are shown to have slightly lower GPA than right handed individuals. Also sociability plays a more important role than actual birth order determining why subjects with lower birth rank had lower grades. Given that firstborns generally rated the importance of academics higher and studied more prevents me from saying any one factor actually caused higher grades. Also, there was no difference between the genders in GPA. Therefore, the only thing that can be concluded, is that there is a relationship between birth order and how well one does in school.	
Summary Statement My project is a study that helps parents, teachers, and students alike see which child has the highest GPA,, and if varied factors have an impact on this study's outcome.	
Help Received Father went out to purchase supplies; Richard Kim helped in supervision	



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

Name(s) Elan D. Lee	Project Number J1711
Project Title Can People Be Made Sick?	
Abstract Objectives/Goals The question asked in this study was, #Will people claim various medical complaints from a phantom environmental exposure?# Phantom risk is when people feel or claim various symptoms from exposure to a chemical, but the risk of harm is not real. There have been various cases of phantom toxic terrors such as mercury fillings, saccharine, and DDT. The hypothesis for this study was that a suggestion of an environmental exposure and possible illness would cause people to believe they are sick. Methods/Materials 100 healthy adult San Diego residents completed a health survey of 22 different symptoms. The control half of the group completed a questionnaire of the various symptoms over the past week, and the phantom half had the same survey with a written suggestion that people have become ill from the recent San Diego fires. Results The results showed that both the control and phantom study groups had similar demographics and chronic illness. The control group had a total of 104 symptoms and the phantom group had a total of 106 symptoms. Conclusions/Discussion The hypothesis was false in introducing a phantom exposure that caused people to claim various symptoms. San Diegans did not believe they were sick from the firestorms.	
Summary Statement My project attempted to introduce a phantom risk and see if people would think they were sick just by giving them a suggestion that they can be sick.	
Help Received My parents, Dr. Roneet Lev and Dr. Stephen Lee helped me enroll people to my study. My teacher, Mrs. Sangster helped me get my project into the Science Fair.	



CALIFORNIA STATE SCIENCE FAIR 2004 PROJECT SUMMARY

Name(s) Danielle M. Manghera	Project Number J1712
Project Title Pace of Life: Do Ethnic Groups Differ?	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The objective of this study was to determine if men from different ethnicities exhibit a different pace of life, as measured by walking speed in three different areas of daily activities: a business area, a timed area (a crosswalk), and a recreational area.</p> <p>Methods/Materials Fifty men from each of three different ethnic backgrounds [Hispanic, African-American, and Non-Hispanic Caucasian (White)], were timed walking 60 meters in the three areas. The areas chosen were important to determine if the purpose for the activity, and not the ethnicity, affected pace of life more. I chose a 60 meter section leading to the Fresno County Courthouse, crossing a major crosswalk, and, a shopping mall.</p> <p>Results The White men exhibited a significantly faster pace of life in all three areas of testing. Walking 60 meters in the business area, White men averaged 15.7 seconds; Hispanics averaged 17.8 seconds; and, African-Americans averaged 17.9 seconds. In the recreational area, averages in seconds included: White men-17, Hispanics-19.3, and African-Americans-19.8. Walking a timed crosswalk increased every groups' average speed even though the distance was the same. White men, again, exhibited the fastest walking speed at 12.9 seconds, followed by African-Americans averaging 14.5 seconds, and Hispanics averaging 15.5 seconds.</p> <p>Conclusions/Discussion This experiment clearly indicated a significantly faster pace of life for Non-Hispanic Caucasian men than African-American or Hispanic men in the city of Fresno. African-Americans had the slowest walking pace in two of the three areas tested, leading me to conclude they exhibit the slowest pace of life but not significantly different than that of Hispanic men. I also learned that pace of life is situational and varies with external conditions. All averages were fastest in the crosswalk condition where there was an external motivation for pace but averages were also significantly faster in the business area than in the recreational area for all three ethnicities as well.</p>	
Summary Statement I tested the walking speed of 150 men in each of three ethnic groups to determine if any one ethnicity was more prone to higher levels of stress brought on by a faster pace of life, or if pace of life is a situational phenomenon.	
Help Received My mom drove me to the areas and helped spot potential subjects for each of the tests. My teacher made sure I submitted the proper forms.	



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

Name(s) Sophia M. Mitguard	Project Number J1713
Project Title Stress Confessed	
Abstract Objectives/Goals I wanted to find out if 7th graders at my school are more stressed about academics, personal life, or current events. Methods/Materials The first thing I did was to do research on stress in children, using the internet, books, and an interview with a psychology professor from San Francisco State University. I decided that a survey would be the most effective way to find what caused the most stress among my peers. I designed a survey of 15 multiple choice questions and 4 open ended questions. I used 5 questions on each subject: academics, personal life, and current events. The multiple choice answers were "never", "sometimes" and "always." I distributed 250 surveys, of which 204 were returned fully completed, 98 males and 106 females, all 7th graders at my school. I tabulated all the surveys and analyzed the data using Excel graphs. Results Overall-The highest percent of "always" responses are in the academic category. The lowest amount of "never" responses are in the academics category. Academic questions-The question that had the highest response of "always" responses was big school projects(52%), then grades was the second highest(44%). Academics by gender-Females have the highest percent of "always" and "sometimes" responses combined. Males have the highest percent of "never" responses. Personal life and Current Events-The majority of the 7th graders at my school never feel stressed about mad cow disease, pollution, nuclear weapons in North Korea, budget cuts to school, too many non-school activities, or peer pressure. Conclusions/Discussion I found that overall students were most stressed about academics, then personal life, then current events. Within the category of academics, they were most stressed about big school projects (like science fairs), and then grades. Also within academics I divided up the responses into gender. I found that girls had slightly more stress within each category than boys did based on responses of "always" and "sometimes" combined. There are many ways for an adult to help. But the most important thing for a teen to know is that adults are there for them and you will listen and not judge them or moralize.	
Summary Statement My project is about teen stress and what teens feel most stressed about.	
Help Received My family helped a lot with emotional support and when I was stuck they gave me ideas. My older brother helped me with tabulating the data and doing Excel graphs. My mom helped me with typing.	



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

Name(s) Alexander J. Morgan	Project Number J1714
Project Title Thumb's Up	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals I attempted to show that people with a predominant ethnic heritage (one to two) tend to have fewer fingerprint patterns than people with several ethnic heritages (more than two).</p> <p>Methods/Materials I fingerprinted each finger of the right hand using 50 human volunteers chosen at random. Age, gender, and ethnic heritage were my variables and the use of the right hand only was my control. Then I observed the fingerprints under a magnifying glass and classified them as whorls, arches, or loops. I also noted the person's name, age, major ethnic heritage/s, and gender. Finally I charted the information to see if my results supported by hypothesis (objectives/goals).</p> <p>Results The results of my 10 experiments confirm my hypothesis: That people with multi-ethnic heritages (MEH) will tend to have a greater variety of fingerprint patterns on their hands than those with only one or two ethnic heritages.</p> <p>Conclusions/Discussion Today, the FBI has the largest fingerprint database in the world -- complete with the fingerprint records of more than 44 million criminals. Because the FBI has so much fingerprint-related data to process, new ideas about fingerprint classification can help solve crimes more quickly and effectively.</p> <p>During my research, I was able to correspond via e-mail with several forensic scientists in different parts of the world. A few of them said that there is growing evidence of a connection between ethnic heritage and fingerprint patterns -- not just in terms of variety, but kind of pattern. Many also said they actively looking for ways to improve fingerprint classification systems: For example, to come up with better-designed systems that can help investigators find missing children more quickly.</p> <p>For this reason, I'm gratified that my results supported my hypothesis.</p>	
Summary Statement My project is about showing how ethnic heritage and fingerprint patterns correspond and how that information might be used to help forensic scientists solve crimes.	
Help Received My father, who is a senior vice president at his company, helped me get volunteers to give their fingerprints.	



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

Name(s) Katelyn M. Ridgeway	Project Number J1715
Project Title Stop Smoking Aids or Cold Turkey?	
Abstract Objectives/Goals The purpose of this project was to determine the quit smoking method or product that had the greatest success rate, and which methods or products had a dominant failure. This project also determined the age group that most people started smoking. Another goal I had was to identify the dominant reason why people started smoking. Methods/Materials To answer my questions, I decided to survey previous, and current smokers. To get quality results, I had to get a huge quantity of surveys filled out. To do this, I stood outside of grocery stores with my parents collecting surveys from either previous or current smokers. I also dropped off stacks of surveys at doctors offices for patients to fill out while they were waiting. My main materials were surveys, clipboards, and pencils. Results After I finished surveying, I had a whopping total of 1,005 surveys! 721 out of 808 previous smokers (89 percent) who tried cold turkey (no aid) succeeded. Products containing Nicotine such as patches and gum had a dominant failure. 85 percent failed using Nicotine products. 659 out of 811 (81 percent) started smoking in their teens, the average age being 16. I also found out that most start either because of peer pressure or because they want to be cool. Conclusions/Discussion I concluded that the best way to quit smoking is to go cold turkey and not with Nicotine products. I also concluded that most start in their teens-high school years. This result goes to show how important it is to talk to kids about not smoking since this is a very influential age.	
Summary Statement The soul purpose of this project was to determine the best way for smokers to quit.	
Help Received Dad spray painted my board, attached turkey and chains. Parents helped me collect surveys.	



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

Name(s) Neriyah S. Ritblatt	Project Number J1716
Project Title How Does Classical Music Affect Cognitive Tasks in K-1st Grade Children?	
Abstract Objectives/Goals The purpose of this project was to study if classical music affects a child's performance doing cognitive tasks. Methods/Materials Materials included: CD with Mozart sonata and Albinoni Adagio in G minor, CD player, Stop watch, worksheets included tasks in three areas: literacy/reading, math, and spatial problems. Six groups of students (3 kindergarten and 3 1st grade classes) were tested twice (no-music and music). Out of the 6 groups, three started with the music condition followed by the no-music condition and three started with reversed order. Each condition lasted 10 minutes. In the music condition, the signal to start was accompanied with the playing of the music; for the no-music condition the signal to start was given verbally. Results Ninety-three SDJA students participated. Out of the 93 children, 82 participated in the no-music condition and 87 in the music condition (76 children participated in both conditions). Fifty two children (56%) were kindergarten students and 41 (44%) were 1st grade students. Out of the 93 participants, 44 (47%) were boys and 49 (53%) were girls. The number of mistakes in both conditions (music and no-music) was marked on each sheet. If a child did not have any mistake the score was 0. If there was 1 mistake- a child score was 1 (and so on). Percentages and Means were calculated in order to compare how children. Results showed children finished the tasks faster and had fewer mistakes when listening to classical music. They especially did better in math and spatial problems when listening to classical music vs. no-music. More children (92% vs. 66%) chose to color when listening to classical music and used more colors than when they did not. Boys did fewer mistakes in the music condition than in the no-music condition in math and spatial problems than girls. Boys finished their tasks faster when listening to classical music than not listening to it in comparison to girls. Conclusions/Discussion Children did better on the three tasks when listening to the music. All hypotheses were correct.	
Summary Statement The effects of classical music on the cognitive performance of K-1st grade students	
Help Received Mother guided me in the project by showing me how to research the topic	



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

Name(s) Riley R. Sisk	Project Number J1717
Project Title Candy or Medicine? Children May Be Confused	
Abstract Objectives/Goals Will young children be able to tell the difference between some candy and medicine, and therefore be at risk of poison or overdose? Purpose: A lot of medicine looks just like candy and is a danger to children. Hypothesis: I think that the much medicine looks so much like candy that a child will not know the difference. Methods/Materials Materials: over-the-counter Medicines and Candy Look-A-Likes, graph paper, index cards, glue, varnish, markers, camera, and 20 children between the ages of 4-6. Before testing, I went to a pharmacy and a drug store to look at medicines and candy with a Pharmacist. I then chose the ones I thought were the most confusing. I decided to narrow my research to just over-the-counter medications for the purpose of testing. The procedure for testing: 1. Get permission from parents of Kindergarten class to participate in study. 2. On separate index cards, glue and varnish an actual medication to it and write the name on the back. 3. Do this for 8 medicines and 4 candies (names provided in full report). 4. In the classroom with teacher present, ask children one by one, "Is this candy or medicine?". 5. Record your results on a chart about each one with a "M" if they guessed medicine, a "C" if they guessed candy. 5. Tally the results and recorded on a graph. The results showed that for the 8 medicines that were shown to the children, all but one had the majority of the children confused as they thought the medicine sample was candy. Results Children were confused in the majority of the cases. They thought the medicine was candy. Conclusions/Discussion My conclusion is that my hypothesis is correct and children are confused about some medicine being candy. Because of this, they are in danger of ingesting a pill that could be harmful, poisonous or even deadly. To make it even more confusing, I found many of the medicines to even smell good. I think that the coating on the outside of pills should NOT look like candy and should NOT taste good. Also, I found packaging of over the counter medicines easy to open. This explains why poison control centers have had an increase over the years in calls about children ingesting unprotected medicine.	
Summary Statement A lot of Over the counter medicines look just like candy, therefore young children are at risk of accidental poisonings.	
Help Received Thomas Dembski, Ph.D. pharmacist, Margie Sisk- direct supervision	



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

Name(s) Jacob R. Skidmore	Project Number J1718
Project Title Battle of the Brands: National Brand vs. Store Brand	
Abstract Objectives/Goals My objective is to determine if kids prefer national brand foods over store brand foods and if they are influenced more by package appearance, food appearance, or taste. Methods/Materials 10 to 15 student volunteers were asked to judge package appearance and actual product appearance of six foods kids typically eat including cereal, crackers, orange juice, breakfast pastries, and two kinds of cookies. They judged their preference for the national brand or the store brand. Also, a blind taste test was conducted. The procedure was repeated with a second group of students. Results The students consistently chose national brand products over store brand products in all areas. They were influenced most by packaging appearance. The area of least preference was taste. A small percentage in each area had no preference, liking national brand and store brand equally. Conclusions/Discussion Kids like national brands more than store brands. They liked the packaging and the appearance. They showed less preference for taste, but national brand still got more than half of the votes. Because up to 28% did not care, I believe it is worth it to try store brand foods if you can save money.	
Summary Statement My project is to determine whether it is worth the higher price to buy national brand or whether store brand is just as good.	
Help Received My Mom helped me choose my topic & plan my project. My Mom, sister, & friend helped me conduct the tests and my Mom helped type my project.	