



# CALIFORNIA STATE SCIENCE FAIR 2014 PROJECT SUMMARY

<b>Name(s)</b> Omer A. Raheem	<b>Project Number</b> 34924
<b>Project Title</b> Stresstigation: Correlating Body Temperature and Stress	
<b>Abstract</b> <b>Objectives/Goals</b> Stress is the body's reaction to a change that requires a physical, mental, or emotional behavior. Stress is a normal reaction that happens in our daily lives. Physiologically, stress occurs because of the release of hormones which causes a higher body temperature. It's a feeling that's created when we react to particular events such as taking a test. I want to find out if students from ages 12-13 do better when they have a higher stress level or a lower stress level. I also want to find out if there are any changes in their body temperatures due to the change in stress level. <b>Methods/Materials</b> I had the students take a mini survey asking which subject they find difficult. Based on the surveys' results, I created a Standardized Math Test. I had each student fill out a fill-in form asking them questions about their age, gender, etc. Then, I had each student take the Standardized Math Test in three minutes. I covered a thermometer with a Probe Cover and checked the body temperature of each student before and after taking the test. <b>Results</b> Due to stress, the students' body temperatures did change. The students who had a higher stress level before and after taking the test had a higher increase in their body temperatures. The students who had a lower stress level before and after taking the test had a lower increase in their body temperatures. <b>Conclusions/Discussion</b> In conclusion, the students from ages 12-13 do better in their tests when they have a higher stress level. Due to stress, their body temperatures change. The students who had a lower body temperature and lower stress level did poorly on their tests. The students who had higher body temperature and higher stress level did well on their tests. Lots of people think stress is bad and unhealthy for you. Some people don't even know if stress is good or bad for them. However, stress isn't always bad. Some amount of stress is healthy, but excessive stress can lead you to health problems. When you come upon stress, it helps you keep your mind alert and makes you do things faster. Also, you are more awake, aware, and focused.	
<b>Summary Statement</b> My project is about correlating Body Temperature and Stress in Students from ages 12-13.	
<b>Help Received</b> Mother and sister helped me grade the tests; Mrs. Maryam Abbasi, Mrs. Muna Moinuddin, and Mrs. Nabila Patel guided me throughout the project	