



# CALIFORNIA STATE SCIENCE FAIR 2010 PROJECT SUMMARY

<b>Name(s)</b> <b>Evan H. Rhee</b>	<b>Project Number</b> <b>J0322</b>
<b>Project Title</b> <b>The Study of the Relationship Between Solar Flux and the Stock Market</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> The purpose of my experiment was to find a correlation between two variables, solar flux and the stock market, and see if the correlation was consistent and if it was inversely or directly related.</p> <p><b>Methods/Materials</b> Materials: Microsoft excel, a computer, CQG software, Tradestation, Internet connection. Procedure: 1. Identify dates of different solar flux peaks by going on to <a href="http://www.solen.info/solar/">www.solen.info/solar/</a>. 2. Go to the archives section and a list with all the years, months, and days of solar flux data will be opened. 3. Click on each month to see what the solar flux was for those months. 4. Copy the data for solar flux and the dates and transfer it to Microsoft excel by pasting it onto a spreadsheet. 5. Go on to Tradestation and retrieve data on stock prices in different years. 6. Go to Microsoft excel and insert the stock price data onto the spreadsheets with the same dates as the prices and solar flux. 7. Insert a graph containing each months' data on solar flux and stock price with solar flux data on one y-axis and stock prices on the secondary y-axis. 8. Repeat steps four through seven for each year in all the stock indices. 9. After obtaining all of the data for solar flux and stock prices and creating small graphs, take the solar flux and a stock index data for one year and create a table. 10. After creating the table enter Pearson's correlation formula into the excel spreadsheet containing the data table and select the solar flux and stock index data. 11. Then select the data for solar flux and the stock index prices again and create a big line graph with solar flux on the primary y-axis and stock index prices on the secondary y-axis. 12. After repeating this process for all of the indices and years create line graphs with the correlation coefficients plotted in the graph for each stock index along with the wheat commodity.</p> <p><b>Results</b> see methods and materials</p> <p><b>Conclusions/Discussion</b> My conclusion is that the correlation between solar flux and the stock market is random because the correlation coefficients were low and fluctuated between positive and negative numbers, making the</p>	
<b>Summary Statement</b> My project is to see if there is a correlation between solar flux and the stock market.	
<b>Help Received</b> Father and Uncle helped downloading data, teaching me how to use excel, and explaining correlation formula and basic economics.	