

CALIFORNIA STATE SCIENCE FAIR 2013 PROJECT SUMMARY

Name(s) **Project Number Priya Valentina J0129 Project Title** Viscosity Challenge: Milk, Oil, or Pancake Syrup? Abstract **Objectives/Goals** The purpose of this project was to find which one of the liquids (milk,oil, or pancake syrup) has the highest viscosity. **Methods/Materials** I will be testing the viscosity of each liquid by using the "dropped-sphere" method where a marble is dropped down into each graduated cylinder with each liquid inside and the time it takes to get through each liquid is recorded. Then the results from this method will then be inserted to the viscosity equation. Identify each term of the equation for each liquid and then calcualte the math. **Results** When calculated, the results were pretty evident at the end. The marble that went through the pancake syrup had the slowest average time (8.18 sec). The marble in the milk had the highest average time(0.67sec). Oil's average time was close to the milk's time (0.96 sec). When these results were inserted into the equation, the syrup had the highest and number and the milk had the lowest number. Conclusions/Discussion My conclusion was that the results do support my hypothesis. The pancake syrup did have the highest viscosity and the milk had the lowest viscosity. Milk and Oil maintained similar results throughout the experiment, however, the syrup's results remained high. This project helped me analyze the different components of each liquid. If this project was to be repeated I would suggest using the dropped-sphere method in differnt temperatures. Would the pancake syrup still have the highest viscosity even in different temperatures? **Summary Statement** Finding the viscosity of each liquid by using a sphere(marble). Help Received Mom helped me by getting all the materials and gluing information on the display board.