



**CALIFORNIA STATE SCIENCE FAIR  
2011 PROJECT SUMMARY**

<b>Name(s)</b> <b>Andrew D. Raynes</b>	<b>Project Number</b> <b>J0613</b>
<b>Project Title</b> <b>Does Soda Temperature Affect the Height of a Mentos Geyser?</b>	
<b>Abstract</b> <b>Objectives/Goals</b> My objective was to determine if Mentos mint candies would react differently in different temperatures of soda. I believe that the heated soda will shoot a higher geyser than either the room-temperature soda or the refrigerated soda, because the molecules in the heated soda will become more active and create more pressure. <b>Methods/Materials</b> Nine rolls of Mentos mint candies, 9 2-liter bottles of Diet Coke, 1 Mentos Geyser Tube, a digital meat thermometer, a heating pad, a tape measure, blue painter's tape, and a black and red marker to mark 6-inch and 1-foot intervals were used in this experiment. A camera, a camcorder, a pencil, and paper were used to record data from the experiment. Three bottles of Diet Coke were refrigerated, three bottles were heated with a heating pad, and three bottles were left at room temperature. Eleven Mentos were dropped into each of the bottles, and the heights of each geyser created were recorded. <b>Results</b> The three refrigerated bottles of Diet Coke consistently produced the shortest geysers of the nine bottles tested, while the heated bottles of Diet Coke consistently produced the highest geysers of all trials. <b>Conclusions/Discussion</b> My conclusion is that the temperature of the soda does have a major affect on the height of a Mentos geyser, with heat creating more energy to produce a higher geyser.	
<b>Summary Statement</b> This project shows how heat intensifies a reaction when Mentos candies are dropped into Diet Coke.	
<b>Help Received</b> Mother took pictures, helped type report, and helped create 3D model on display. Father videotaped.	