



**CALIFORNIA STATE SCIENCE FAIR  
2007 PROJECT SUMMARY**

<b>Name(s)</b> <b>Reba M. Smith</b>	<b>Project Number</b> <b>J1838</b>
<b>Project Title</b> <b>Hot or Not</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> My objective was to find out if chewing mint-flavored gum, cinnamon-flavored gum and simply chewing with nothing in your mouth would effect the temperature of your mouth.</p> <p><b>Methods/Materials</b> Materials: 1. Big Red gum 2. Winter Fresh gum 3. Five volunteers 4. An oral termometer 5. Disposable thermometer covers. Methods: I had my volunteers not talk eat or drink for 30 minutes. Then I had them chew cinnamon gum for 5 minutes. Next I took their temperatures, asked how their mouth felt while chewing and repeated these steps with the mint gum and no gum at all.</p> <p><b>Results</b> I discovered that the temperature of the subjects that chewed the cinnamon gum raised a total of 1.2 degrees. The subjects who chewed the mint-flavored gum raised a total of 9.4 degrees. The subjects who just simply chewed raised a total of 3.2 degrees. So I learned that the mint gum raised the temperature more than simply chewing and the lowest temperature change was with the cinnamon gum.</p> <p><b>Conclusions/Discussion</b> My hypthesis was somewhat correct I thought the mint would raise the temperature the most which it did. But suprisingly chewing nothing raised the temperature of my volunteers more than the cinnamon (I thought the oppisite). Im my conclusion I stated that I believe the physical movement of a persons mouth while chewing is what causes the temperature to raise rather than the gum in their mouth. So if I had them all chew at the same rate I think my results/conclusion would be different.</p>	
<b>Summary Statement</b> My project is about finding if chewing different types of gum and simply chewing nothing will affect the temperature of a persons mouth.	
<b>Help Received</b> My mother helped with cropping and taking pictures. Mrs. Pealattre (science teacher) helped me decide what to look for in background research.	