



**CALIFORNIA STATE SCIENCE FAIR  
2002 PROJECT SUMMARY**

<b>Name(s)</b> <b>Katrina A. Pare'</b>	<b>Project Number</b> <b>J1529</b>
<b>Project Title</b> <b>Turning the Tortoise into the Hare</b>	
<b>Abstract</b> <b>Objectives/Goals</b> This experiment was done to discover if hitting the ketchup that has been refrigerated for 24 hours or at room temperature for 24 hours, would fill your need to feed faster. <b>Methods/Materials</b> Frame (made of wood), 10 bottles of restaurant style ketchup (5 bottles have been placed in a refrigerator for 24 hours, and the other 5 bottles have been placed in room temperature for 24 hours), 2 stopwatches, pencil or pen, paper, calculator, and a packet of 6in. (15 cm.) plates cut in half. <b>Results</b> The results of this experiment showed that the ketchup that had been in the refrigerator for 24 hours came out 2 min. and 14 sec. faster, than the ketchup bottle that had been at room temperature for 24 hours. The results also show that it takes over 100 hits to even see viscosity changing. <b>Conclusions/Discussion</b> After all data was completed and averaged I came to the conclusion that after refrigerating the restaurant style ketchup bottle for 24 hours and smacking the bottom of the bottle will cause a 2 min. and 14 sec. decrease from smacking the bottom of the ketchup bottle at room temperature. The ketchup will take forever to come out on its own if not acted upon by some sort of variable. So when put in the refrigerator for 24 hours, the viscosity changed making the ketchup flow faster than at room temperature. Then when we hit the bottom of the ketchup bottle, it caused the viscosity to shift to a different position so it didn't take as long. In further conclusion, my hypothesis was proven wrong.	
<b>Summary Statement</b> By hitting the restaurant style ketchup bottle on the bottom, which temperature of ketchup comes out faster, room temperature or refrigerated?	
<b>Help Received</b> Dad helped build frame and place ketchup bottles in handles during experiment.	