



California Science Center
CALIFORNIA STATE SCIENCE FAIR
2001 PROJECT SUMMARY

Your Name (List all student names if multiple authors.) Anton N. Sepetov	Science Fair Use Only <h1 style="margin: 0;">J0429</h1>
Project Title (Limit: 120 characters. Those beyond 120 will be ignored. See pg. 9) How does Toothpaste Work?	Division <input checked="" type="checkbox"/> Junior (6-8) <input type="checkbox"/> Senior (9-12)
Preferred Category (See page 5 for descriptions.) 4 - Chemistry	
Abstract (Include Objective, Methods, Results, Conclusion. See samples on page 14.) Use no attachments. Only text inside these boxes will be used for category assignment or given to your judges.	
<p>The purpose of this project is to find out the three functions of toothpaste, which toothpaste works best, and how toothpaste works. Three experiments were performed to explain how toothpaste protects teeth, cleans teeth, and whitens teeth. My hypothesis was that toothpaste works when Sodium Fluoride reacts with teeth and kills the bacteria that are on the teeth. The hypothesis was tested by doing three experiments.</p> <p>In one experiment, I took a normal egg and put half of it in toothpaste for 4 days. After four days in toothpaste, I took the egg out of the toothpaste and put it in vinegar. When I took the egg out of the vinegar, the side not treated by the toothpaste was soft and the side treated with toothpaste was hard. On another experiment, I put three white seashells in Coca Cola for 4 days. After they were stained, I cleaned them with toothpaste to see which toothpaste cleans the best. In my third experiment, I took some tea and put toothpaste in the tea, if the tea lost its color, it meant that the whitening in the toothpaste had worked. After doing all these experiments, the Colgate Total toothpaste did the best in all the experiments. From this I can conclude that the Colgate Total toothpaste is the best in cleaning, protecting, and whitening teeth.</p>	
Summary Statement (In one sentence, state what your project is about.) This project is about testing which toothpaste works best in cleaning, whitening, and protecting teeth.	
Help Received in Doing Project (e.g. Mother helped type report; Neighbor helped wire board; Used lab equipment at university X under the supervision of Dr. Y; Participant in NSF Young Scholars Program) See Display Regulation #8 on page 4. Mother and Father helped in monitoring experiments and giving information; Neighbor gave advice about judging.	