The project was designed to test if sodas (soft drinks) affect tooth enamel. Tooth enamel is the hard white outer layer of the tooth. Damage to the enamel will cause tooth decay and possible gum disease. It's important to keep teeth healthy. If we soaked old baby teeth in different sodas (Coke, Dr. Pepper, Root beer, and Sprite), then we predicted that the dark colored sodas will cause the most enamel discoloration and tooth decay. Four plastic containers of the same size were labeled and filled with a measured four ounces of the different sodas. Four old human baby teeth were observed with a magnifying glass to check for cracks or decay. With tweezers we place one tooth in each container. Every twenty-four hours, we laid out the teeth on paper towels and examined and recorded data. We continued gathering data for seven days. After seven days of experimenting, our conclusion is that Coke and Dr. Pepper had the worst damage to teeth with no tooth brushing. Root beer and Sprite has the least damaging effects to the teeth. Sodas contain phosphoric acid and acid affects the teeth by etching away the tooth enamel making the teeth weaker over time. This data supports our hypothesis. We conclude that drinking soda without daily teeth brushing will cause damage to teeth. After this experiment we're more aware of our soda intake and brushing our teeth better. We also learned that phosphoric acid weakens bones and teeth and is not good for your health.