

**Tessa Ringlein**

Junior Division Chemistry

*Pucker Up To Poison*

The initial purpose of this experiment was to see if the color of lipstick affected the lead content. As I proceeded, I also wanted to determine whether both lipstick colorants and additional ingredients contained lead. The lead content of each sample was obtained by breaking down their molecular structure through a heat process. Liquefied samples were placed in tall beakers until an equal volume was reached before putting them into a Graphite Furnace Atomic Absorption machine. In my research, I found that the L'Oreal True Red lipstick contained the highest amount of lead at 1380 ppb. The ingredient with the highest amount of lead was zinc oxide at 10,400 ppb. I believe that the L'Oreal True Red contained a high amount of lead because of zinc oxide, not because of colorant. In conclusion, there is more lead in red lipstick than in other colors. The hypothesis on colorant was rejected because the colorant contained undetectable amounts of lead. If the government does not enforce some sort of standards for cosmetics, this could become a health concern for society.