



**CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY**

Name(s) Ashley Su	Project Number J1841
Project Title Ashley's Secret Formula	
Abstract	
Objectives/Goals My mom sprays herself with a little of perfume everyday and she smells great. I am wondering why perfume smells so soothing and which ingredient in the perfume causes it to smell differently? Can I make a new kind of perfume with a variety of scents and perhaps could change different moods (happy, thirsty, relaxation, concentration, or others) for preteens like me?	
Methods/Materials The procedures of this experiment are to analyze the ingredients of each kind of perfume oil, mix different types of fragrance oil or add new ingredients together with different alcohol density to create a new mixture that would smell differently. The results are then recorded and analyzed.	
Results The three scents that I think that will benefit to a teen are for concentration, refreshment, and relaxation. After analyzing essential oils and other ingredients in details, I chose 10 different educational guesses of mixtures for each targeted scent that I want. The total mixtures that I tried in this project are 30. My secret formulas are: Formula # 1 (1.59% of Lavender, 3.17% of Bergamot, 86.7% of Alcohol, and 8.6% of Water), with a smell of floral, sweet, pure and feminine scent that makes me happy, is great for relaxation. Formula # 15 (10.53% of Lavender, 5.26% of Bergamot, 5.26% of Ylang Ylang, 26.32% of Lemon Soda, 47.89% of Alcohol, and 4.74% of Water) cleanses and refreshes whole body, plus a hint of lemon that makes me feel like I am going to have a wonderful day. Formula # 10 (5.88% of Lavender, 5.88% of Lemon, 29.41% of Lemon Soda, 53.53% of Alcohol, and 5.29% of Water) helps me to concentrate with a whiff of lemon, mint, pine trees, and flowers.	
Conclusions/Discussion My hypothesis was that the scent in perfume can be altered and a new scent can be created. The experimental results support my hypothesis by producing different kinds of perfumes with new scents made by mixing or changing ingredients in perfume. The experiment also suggests that different people might have various results with each mixture due to differences of body chemistry.	
Summary Statement To make new kind of perfumes with a variety of scents that perhaps could change different moods (happy, thirsty, relaxation, concentration, or others) for preteens like me.	
Help Received My mom helped me get all materials needed in this project; my dad assisted me brainstorm the ideas and let me use his computer and printer to illustrate the results.	