

CALIFORNIA STATE SCIENCE FAIR 2016 PROJECT SUMMARY

Name(s)

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Project Number

J1206

Project Title

The Nose Knows Smell, but Does It Know Taste?

Abstract

Objectives/Goals

The objective of this project is to observe how smell is involved in the ability to taste and which flavors are easier to identify with an impaired sense of smell. I believe that if I take away someone#s ability to smell by making them plug their nose then their ability to taste will be reduced.

Methods/Materials

To better compare the ability to taste with or without a sense of smell, I use a control group and an experimental group. I gather 18 subjects, 9 for the control group and 9 for the experimental group. I blind fold all 18 subjects but only have the experimental group plug their noses. Then, I hand each person 1 tablespoon of each food item from the 6 different taste buds. After they try each food item, I ask if they can identify the taste of the food item they are given.

Results

I observed that both groups were fully capable of identifying the bitter (vinegar) and salty (potato chips) food items. But only the control group could identify the taste of all food items correctly.

Conclusions/Discussion

In conclusion, my results support my hypothesis and show that we actually do need our sense of smell to taste the food we eat. Many people think of taste and smell as two very different senses, but without smell we wouldn't be able to taste.

Summary Statement

After completing my experiment, I found that humans use the sense of smell to complete an everyday task, taste food.

Help Received

I gathered my test subjects and performed the experiment myself.