

**Team Number:** MELMS38

**School Name:** Melrose High School

**Area of Science:** Psychology / Physiology

**Project Title:** There is NO Yellow!

**Problem:**

We are a first year team starting on learning computer programming. To do this, we are going to re-do a project that students from our school attempted several years ago. Our teacher told us about the idea, and how it could be done, so we thought it would be a good one to start with. This project's title is "There Is No Yellow!" This idea comes from the fact that there are no yellow color pixels on a computer screen. It appears yellow because of the way the Red Blue Green pixels interact. We will show how different subtle changes in these combinations are detected by different people. Our project will be an experiment with test subjects using a computer model showing color changes.

**Solution:**

We want to find out if there is a difference in how colors are seen by people of different ages, genders, and backgrounds. We will have a computer test screen see how much of a change in different values of red – blue – green can be made before they are noticeable. Our model will consist of a computer screen that is broken into four quadrants. Each will have an exact color combination of RGB pixels at the beginning, but randomly, one of the sections will have a slightly changed RGB combo. We will test to see how much of a change is needed for individuals to detect the change. We will then keep track of the data collected, and see if there are any segments of the population tested that have noticeable differences from the others. Our teacher tells us that we can do a kind of math called "statistical analyses" to show how important or noteworthy any differences are, so we will get our math teacher to help us out.

**Progress to Date:**

**Expected Results:**

Our main goal this year is to learn what computer programming is about, and how the Super Computing Challenge works. Several of us on the team have had older siblings do projects before. **What about the end results for your project? How can you apply your results to the real world?**

**Citations:**

**Team Members:** Daniel Mondragon, Sean Garcia, Paityn Nicholson, and Nash Martin.

**Teacher:** Alan Daugherty