## CALIFORNIA STATE SCIENCE FAIR 2014 PROJECT SUMMARY

Name(s)
Stephany R. Brundage
Project Title
Purple Madness
Objectives/Goals
My objective was to see if chickens were blind to purple, or if it is an old family myth, and they stay away
from it due to natural instinct from purple things being poisonous in nature.
Methods/Materials
Seven chickens were used, 2 cocks and 5 hens. In the first experiment the chickens were fed a bowl of
white rice and a bowl of dyed purple rice to see which color they prefer. In the second experiment the
chickens were fed scratch grain that was set on two separate sheets of paper; one purple and one white. In
the third experiment I put a purple hair tie, then a white hair tie in front of the birds' beaks to see which
color they seemed more interested in. In the fourth experiment the chickens were fed a bowl of popcorn
with one piece dyed purple and set on top, and a bowl of plain popcorn. The fifth experiment was actually
a side experiment and the chickens were fed a bowl of purple spaghetti to see how much hesitation there
was when eating it.
Results
The results of my project were partly inconclusive. The chickens may be blind to purple, but this may still
be an old family tale. The results of my project pointed more toward the chickens being blind to purple,
but since the chickens have an extra cone in their eyes (the UV cone) along with the RGB cones, they do
see colors, but since they have the UV cone, they see UV reflection so colors appear different to them and
more reflective things are "brighter".
Conclusions/Discussion
My conclusion is that my hypothesis is wrong, and the chickens may or may not be blind to purple, and
according to my project chickens do not stay away from purple due to natural instinct from things being
poisonous in nature.

## Summary Statement

My project was about seeing if chickens are blind to purple or not.

## Help Received

Mother was photographer

