



**CALIFORNIA SCIENCE & ENGINEERING FAIR  
2018 PROJECT SUMMARY**

<b>Name(s)</b> Skye D. Samuels	<b>Project Number</b>  38077
<b>Project Title</b> Chicken Smarts: A Study of Memory, Learning, and Sensory Perception in Chickens	
<b>Abstract</b> <b>Objectives/Goals</b> The objective of this project was to test the hypothesis that Chickens can learn to associate color with the location of their food. <b>Methods/Materials</b> Six chickens, were divided into two groups of three, a test group and control group. The testing environment was made up of a fenced-in 8 foot square, on concrete. Plastic bowls were placed in two corners of the square, diagonally across from one another. One bowl contained food. The other did not. For the test group, the food-containing bowl was red, and the other bowl was blue. For the control group, both bowls were blue. For 20 days, chickens were placed individually into the testing environment and observed. They were timed from the moment they entered, until they ate from the food bowl. On day 21, the bowls were switched and the chickens were, again timed, as above. <b>Results</b> The test group chickens had a significantly lower average time for finding their food, once the location had been changed. Only one of the control group chickens found the food. <b>Conclusions/Discussion</b> The test group chickens had a significantly lower average time for finding their food, once the location had been changed. This study supports the idea that chickens can learn to associate color with the location of their food.	
<b>Summary Statement</b> This experiment showed that chickens can learn, to associate a color with food location.	
<b>Help Received</b> My father helped me set up the test environment and taught me how to edit the raw video footage once testing was completed.	