



**CALIFORNIA STATE SCIENCE FAIR
2016 PROJECT SUMMARY**

Name(s) Isabella E. Cawley	Project Number J1904
Project Title Clorox Wipes vs. Clorox Green Works Wipes: Is Green as Clean?	
Objectives/Goals "Going green" is trendy, but is it actually worth it? The purpose of this project was to decide which wipe, Clorox or Clorox Green Works, kills the most bacteria.	
Abstract In this experiment, Clorox and Clorox Green Works wipes were tested with soap and water sanitized tiles and chicken as a source of bacteria. A baseline reading was taken the first day. The two tiles were then rubbed with chicken. Clorox and Clorox Green Works wipes were used to clean the tiles. The tiles were swabbed. Then the swabs were introduced to petri dishes with nutrient rich agar. The petri dishes were checked for five days. To measure the percentage of area colonies covered in each petri dish, the petri dishes were placed on top of a grid of 88 squares. The area was determined by counting the number of squares that included colonies.	
Methods/Materials In this experiment, Clorox and Clorox Green Works wipes were tested with soap and water sanitized tiles and chicken as a source of bacteria. A baseline reading was taken the first day. The two tiles were then rubbed with chicken. Clorox and Clorox Green Works wipes were used to clean the tiles. The tiles were swabbed. Then the swabs were introduced to petri dishes with nutrient rich agar. The petri dishes were checked for five days. To measure the percentage of area colonies covered in each petri dish, the petri dishes were placed on top of a grid of 88 squares. The area was determined by counting the number of squares that included colonies.	
Results By the third day, a few of the petri dishes showed some bacteria. On the fifth day, some petri dishes seemed to have milky colonies, some had a multitude of pin prick-like colonies, and some had bacteria growing on the rims. The Clorox petri dishes had 49, 66, 13, and 42 of the 88 squares covered in colonies of bacteria. The Clorox Green Works petri dishes had 62, 82, 73, and 81 of the 88 squares covered in colonies of bacteria. The Clorox wipes killed 51% of the total bacteria while the Clorox Green Works wipes killed 13% of the total bacteria.	
Conclusions/Discussion I hypothesized that Green Works wipes would kill the most bacteria. But after the trials were over, it was clear that the Clorox wipes were more effective at cleaning bacteria from the tiles.	
Summary Statement I tested whether "green" wipes performed as well as normal antibacterial wipes.	
Help Received My parents purchased the items needed to complete the project and helped time me while I worked with the tiles. My science teacher helped me with my data tables and graphs.	