



**CALIFORNIA STATE SCIENCE FAIR  
2006 PROJECT SUMMARY**

<b>Name(s)</b> Amy L. Schultz	<b>Project Number</b> <b>J1427</b>
<b>Project Title</b> <b>Killer Karts</b>	
<b>Objectives/Goals</b> My objective is to see whether wiping down grocery cart handles reduces bacterial growth and which of 3 different disinfectant wipes prevents the most bacterial growth.	
<b>Abstract</b> <b>Methods/Materials</b> For each of 3 different disinfectant wipes, 3 wipes were used to wipe down 9 randomly selected grocery cart handles. The cart handles were swabbed with a sterile swab after drying for 30 seconds and cultured on sterile agar plates. An additional 3 cart handles were swabbed without being wiped by any disinfectant wipe and cultured on agar plates. Three agar plates were also cultured with a sterile swab and used as controls. The plates were then incubated for a total of 96 hours with the number and appearance of bacterial colonies recorded for each plate. The experiment was repeated 2 more times for a total of 3 trials. The growth of bacteria was compared by totaling up the number of colonies found for each type of wipe, nondisinfected and control plates.	
<b>Results</b> The control plates had 0 bacterial colonies at 96 hours. The non disinfectant plates had a total of 377 colonies at 96 hours. The SaniCart Wipes plates had a total of 6 colonies at 96 hours. The Wet Ones Antibacterial Towelettes plates had a total of 6 colonies at 96 hours. The Clorox Disinfectant Wipes plates had a total of 3 colonies at 96 hours.	
<b>Conclusions/Discussion</b> My conclusion is that the disinfectant wipes significantly reduced the number of bacterial colonies growing. I also conclude that the Clorox Disinfectant Wipes were slightly more effective at reducing the growth of bacteria than either the SaniCart Wipes or the Wet Ones Antibacterial Towelettes.	
<b>Summary Statement</b> Which of three wipes disinfects grocery cart handles best?	
<b>Help Received</b> My mom helped me type my report and assisted me in my experiments. My dad helped me graph my data, take pictures of the plates and helped with my display	