



**CALIFORNIA STATE SCIENCE FAIR  
2015 PROJECT SUMMARY**

<b>Name(s)</b> <b>Trinity O. Walter</b>	<b>Project Number</b> <b>J1227</b>
<b>Project Title</b> <b>Screen Size and Eyes</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> The objective of this project was to determine whether playing video games on a small screen, as opposed to a larger screen, will cause a greater amount of eye strain that will result in blurrier vision.</p> <p><b>Methods/Materials</b> Test subjects played the same video game on 3 different sized screens: Desktop computer (19.5 inches), Kindle Fire (8.5 inches), and a Nintendo DS (3.5 inches). The Test Subjects played the same game on each device for 1 hour, taking a break every 15 minutes to test eyes on Snellen eye charts. Two tests were conducted for each test subject, taken at two time intervals. The eye charts were alternated to control for memorization variables. Test subjects were exposed to consistent lighting and other environmental conditions, including the distance from face and eye chart. All chart readings took place in same area.</p> <p><b>Results</b> The results for my experiment determined that signs of increased eyestrain were significantly greater on the Nintendo DS, the smaller screen, than the Desktop or the Kindle Fire, the larger screens.</p> <p><b>Conclusions/Discussion</b> Game play on a smaller screen exhibits a bigger decrease in visual acuity than game play on a larger screen, proving that gaming on smaller screens cause more eyestrain quicker.</p>	
<b>Summary Statement</b> My project is about the way different sized screens effect your eyes and how smaller screens are worse for your eyes than larger screen.	
<b>Help Received</b> Mother helped cut paper for display and assisted in conducting eye tests. Teacher advised me in proper scientific method as information.	