



**CALIFORNIA STATE SCIENCE FAIR
2014 PROJECT SUMMARY**

Name(s) Sara O. Vargas	Project Number J2116
Project Title The Cell Phone Microscope	
Abstract Objectives/Goals The objective of my science project was to find out whether the cell phone microscope that I created functions better than a simple microscope. Both of these microscopes have a magnification of 100x. Methods/Materials The materials that I used were 25 different specimens, a camera cell phone, the cell phone microscope appliance, and a simple microscope. The way that I tested this was by taking various pictures of my specimens through both microscopes and creating a chart to rate what picture of the sample has better quality. Results The results when I rated each sample was that they work almost identically. The cell phone microscope that I created was a tad bit better due to picture clarity, the widescreen angle, and the realistic colors shown in the picture. Conclusions/Discussion In conclusion, both microscopes, the simple 100x and the cell phone microscope worked about the same. Plus, the cell phone microscope is much more efficient because it can fit in your pocket, it is fast to focus and zoom, and it costs much less money to build in only a few minutes if you have the right tools. I plan to improve this device and patent it to make it my own. I also plan in the future to create an app to help you use the device more efficiently by recognizing what specimen you are testing. I believe this product could be used in third-world countries to detect viruses and examine the patient as quickly as possible, once the product is improved and finalized, of course. Another idea that I have with this product is to use it in schools for students who have difficulty understanding science. This could help them immensely by having a familiar product like a cell phone in their hands instead of working with very expensive and complicated equipment.	
Summary Statement My project is about a cell phone microscope and comparing it to a simple microscope to see how well it achieves its function.	
Help Received My mother and father have helped me immensely by buying the materials for me and supporting me on my creative ideas along the way.	