



**CALIFORNIA STATE SCIENCE FAIR  
2009 PROJECT SUMMARY**

<b>Name(s)</b> <b>Mia Ramos</b>	<b>Project Number</b> <b>J2226</b>
<b>Project Title</b> <b>A Matter of Megapixels</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The purpose of my project is to determine if the megapixel count in a digital camera affects the print quality of a 4x6 inch glossy print. <b>Methods/Materials</b> Five cameras with different megapixel counts were collected. All the cameras' settings were set the same - all auto since that is what most people use. Seven photographs were taken with each camera, five outdoors, and two indoors - one with flash, one without. All photos were downloaded to a computer and printed on glossy 4x6 photo paper using the same software and printer, (no editing involved). The photographs were then compared - looking at color, sharpness, highlights, shadows, and digital noise. Conclusions were made. <b>Results</b> There was a slight improvement in quality from the 2.2 megapixel camera to the 8 megapixel camera; with a slight dip in the graph for the five megapixel camera. <b>Conclusions/Discussion</b> When I graphed my results I proved my hypothesis correct, which was that more megapixels in a camera would give better prints; though there was only a slight difference in my results. That slight difference might have been due to the fact that in the two megapixel camera there are only 2 million pieces of information but in the eight megapixel camera there are 8 million pieces of information in the same area. That is probably why the two and three megapixel cameras had lower scores than the six and eight megapixel cameras. In my results there is a dip in the graph for the five megapixel camera. This may be because the computer in the camera lacks power or maybe it could be because of a lower quality sensor, or lens.	
<b>Summary Statement</b> Does the megapixel count in a digital camera affect the print quality of a 4x6 glossy print?	
<b>Help Received</b> Mother helped type report; friends loaned me the cameras	