



**CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY**

Name(s) David W. Frank	Project Number 22557
Project Title The Fading of Prints	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals My Project was to determine what type of color printer technology was most resistant to fading.</p> <p>Methods/Materials Six color bars (red, yellow, blue, green, magenta, cyan) were printed out of each of the three types of printers (Laser, Piezoelectric and Thermal) on to acid-free paper. A lightbox with UV lamps was constructed and two prints from each type of printer was faded for 39 days. As a control sample, three additional prints were stored in the dark for 39 days. The prints' colors were measured by a paint color analyzer at the beginning and end of the experiment.</p> <p>Results The laser printer sample faded least, followed closely by the piezoelectric. The thermal printer sample faded very quickly.</p> <p>Conclusions/Discussion My conclusion is that there is a significant difference in the fading qualities between the tested printer technologies.</p>	
Summary Statement My project demonstrated differences in how well prints from three color printer technologies resisted fading when exposed to ultra-violet light.	
Help Received My project demonstrated differences in how well prints from three color printer technologies resisted fading when exposed to ultra-violet light.	