



**CALIFORNIA STATE SCIENCE FAIR  
2004 PROJECT SUMMARY**

<b>Name(s)</b> Steven P. Dewey	<b>Project Number</b> <b>J1512</b>
<b>Project Title</b> <b>Liquid Light</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The objective of my project was to see how bright different colors of light were when passed through a stream of water. <b>Methods/Materials</b> Using a plastic bottle covered with duct tape with a hole near the base, a flashlight, a white board, and color filters (yellow, orange, green and blue) I built an apparatus. The flashlight would shine through the color filter and into the bottle of water. The light would then pass through the stream of water at the base of the bottle, hitting the white board. Before the assistants observed each color filter they observed the brightness of white light as it passed through the stream of water. As each color filter was put in the apparatus an assistant observed the brightness of the light as it hit the white board. The brightness was recorded on a scale of one through five, five being as bright as the control (white light). <b>Results</b> In my experiment it was observed that all of the different colors were less bright than the control. Yellow was the brightest, followed by orange and red, then green and lastly blue. <b>Conclusions/Discussion</b> My conclusion is that when white light is passed through a color filter and a stream of water it will project the color of the filter only slightly less bright than without a filter. All the colors were less bright than the control because white light is made up of all the colors and when you filter some of the colors away you end up with less total light.	
<b>Summary Statement</b> My project is about how colored light behaves when passed through a stream of water.	
<b>Help Received</b> Daniel Dewey helped me to understand the physics of light and was an assistant. Chris and Amy Dewey were assistants. Amy Dewey also helped typed. Tom Dewey helped me build the apparatus.	