



**CALIFORNIA STATE SCIENCE FAIR  
2015 PROJECT SUMMARY**

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| <b>Name(s)</b><br><b>Eleanor M. Mason</b>  | <b>Project Number</b><br><br>35144 |
| <b>Project Title</b><br><b>Determining the Color of Light That Has the Most Visibility in Fog</b>  |                                    |
| <b>Abstract</b><br><b>Objectives/Goals</b><br>My project was to determine the color of light that has the most visibility in fog. I believed that yellow light would have the most visibility in fog.<br><b>Methods/Materials</b><br>I tested my project by taking a light meter, a lemonade container filled with water, and a light, and putting the objects in a line. I turned on the light and measured the brightness with the light meter. I placed different colors of light filters in front of the light to change the color of the light beam. For fog, I placed drops of milk in the water that was in the lemonade bottle. I measured the brightness of different colors of light that passed through set amounts of milk fog.<br><b>Results</b><br>I found that red light lost the least percentage of the light through fog, but yellow was the brightest filtered light through fog.<br><b>Conclusions/Discussion</b><br>My conclusion is that red or yellow light would be the best color of light to use in a headlight when in fog. |                                    |
| <b>Summary Statement</b><br>My project is about determining the color of light with the most visibility when in fog, and with that, reducing the risk of accidents in fog.   |                                    |
| <b>Help Received</b><br>My mom helped me with the testing and with some of the typing. My dad helped set up the experiment.  |                                    |