



**CALIFORNIA STATE SCIENCE FAIR  
2011 PROJECT SUMMARY**

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<b>Project Title</b> How Much Light Energy Do Certain Materials Reflect?	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> The purpose of this experiment was to see if certain materials are good at reflecting the sun's light. The hypothesis of this experiment was that the mirror would reflect the most light energy.</p> <p><b>Methods/Materials</b> Information was collected from tests done over a series of several days. Glass, a mirror, aluminum foil and laminated paper were compared for how much light energy they reflected. A solar panel was set up to measure this reflected energy in a controlled location. A DCV voltage meter was used to collect data.</p> <p><b>Results</b> The mirror indeed reflected the most light, and therefore the most energy, but on cloudy days when there was no light, the foil reflected the most light energy. The two other materials reflected a very close amount of light to each other, but laminated paper was more reflective than glass. So the very reflective color of the white paper was more reflective than glass's sheen and transparency.</p> <p><b>Conclusions/Discussion</b> This data suggests that mirrors reflect more light energy than many common substances. Aluminum foil reflects more light energy, however, if clouds block direct sunlight.</p>	
<b>Summary Statement</b> how much light energy is reflected by certain materials	
<b>Help Received</b> Mother helped organize supplies and project board; Neighbors helped explain certain scientific concepts	