



**CALIFORNIA STATE SCIENCE FAIR  
2007 PROJECT SUMMARY**

<b>Name(s)</b> Sona N. Shah	<b>Project Number</b> <b>J1833</b>
<b>Project Title</b> Sun Specs	
<b>Abstract</b> <b>Objectives/Goals</b> My goal was to find out whether the tint or shade of sunglasses determines the amount of protection it provides against UV light, and whether it is worth paying higher prices for brand name sunglasses. <b>Methods/Materials</b> The materials I needed were twelve brand name sunglasses, nine generic sunglasses, and a UV meter/monitor. First, label the generic sunglasses using the letters A-I. Then, take the equipment outside on a sunny day, and hold the first pair of sunglasses up to the sun. Place the UV monitor in front of it, and then behind it to retrieve the UV indexes, and record the readings. Repeat the same steps with both the brand name and generic sunglasses. Confirm the results by repeating the procedure five times on five different days, all at 4:00pm. <b>Results</b> For my results, all the brand name sunglasses had a hundred percent protection against ultraviolet light. The generic sunglasses, however, had varied results, one of them having no protection. Also, sunglasses with the same tint didn't have similar protection. <b>Conclusions/Discussion</b> In conclusion, the first half of my hypothesis was incorrect. The shade or tint of sunglasses doesn't affect the amount of protection it provides against UV light. Since it doesn't make a difference, the tint is there for personal preference, for different activities, and cosmetic purposes. However, the second part of my hypothesis was correct. It is worth paying more money for brand name sunglasses because they offer better protection against UV light. They contain both UV-A and UV-B protection, which is necessary for your eye. If your eye isn't protected from UV-B light, it can gradually lead to a variety of eye diseases including arc eye, cataracts, vision loss, and blindness. Sunglasses reduce the risk of these eye diseases, which is why it is vital to purchase better quality sunglasses that fulfill the requirements of protecting your eyes.	
<b>Summary Statement</b> My project is about sunglasses, both brand name and generic, protecting the eye against ultraviolet light.	
<b>Help Received</b> Mom's help in buying materials, taking pictures, cutting science board in half to form board.	