



**CALIFORNIA STATE SCIENCE FAIR
2008 PROJECT SUMMARY**

Name(s) Brittany M. Pikula	Project Number J1126
Project Title Can You See "E"?	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals What will affect your distance eyesight more, video games played on the television for one hour at a distance of twelve feet or using the computer for one hour at a distance of two feet?</p> <p>Methods/Materials Materials: Snellen chart, Ten subjects to test ages 12-18 years old, Television, Computer, Journal, Pen/pencil, Camera, Measuring tape, Video game, and system Procedure: 1. Position all subjects 20 feet away for a normal vision reading. 2. Have subject cover right eye. 3. Start at the top of the Snellen chart and have subject read each line. 4. Subjects are allowed to miss two letters and still be able to pass that line. 5. Now cover left eye. 6. Record their vision for a normal base reading. 7. Next have the same ten subjects play video games on the television for an hour from a distance of twelve feet. 8. Record their vision for each eye immediately following one hour of playing video games on television. 9. Have them come back the next day and go on the computer for an hour at a distance of two feet away. 10. Test vision immediately following computer use and record scores. 11. Subjects were tested two days because their vision could still be temporarily changed from the television.</p> <p>Results In my results every one of my subjects' vision was affected with the computer and television, but it also states that using a computer affected every subjects distance vision more than playing video games on a television. The differences are how the subjects' distance vision worsened after using a computer for an hour two feet away. Most of my subjects' distance vision only worsened by one or two lines.</p> <p>Conclusions/Discussion My hypothesis was supported by my results. All the subjects' vision became worse after going on the computer and playing video games on the computer for an hour, the worse being the computer. I believed this happened because with a computer you are closer and there is less movement on the screen than with the television. According to my research, computer use causes eye strain that will make your eyes fatigue, and can even change the construction of the eyeball, causing nearsightedness. We were born to have "hunters" eyes and see at a distance. Our modern world technology has us focusing with our vision up close. We need to consider these things to avoid eye troubles.</p>	
Summary Statement What will affect your distance eyesight more, video games played on the television for one hour at a distance of twelve feet or using the computer for one hour at a distance of two feet?	
Help Received Dr. Henslick, optometrist	