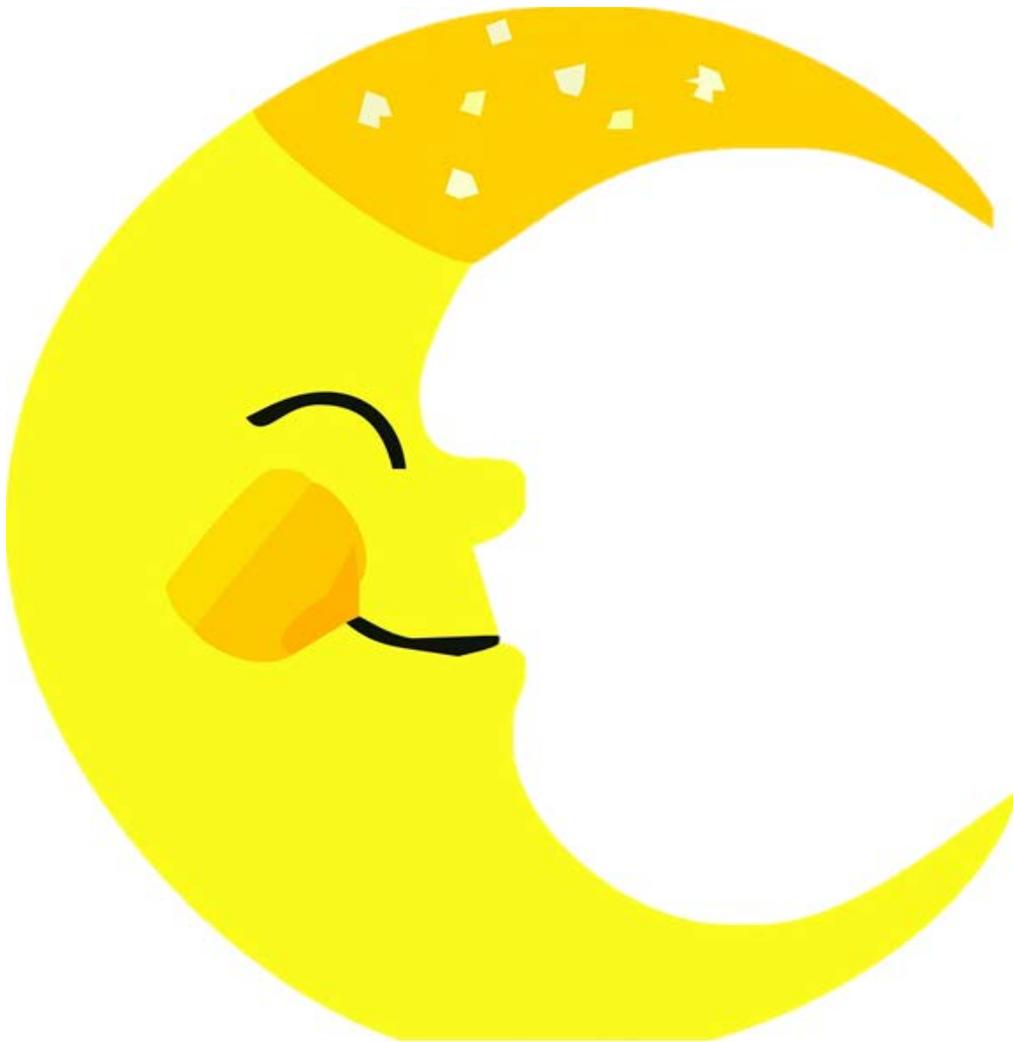


Project **Sleep Best**



Our Rebellion Against Blue Light

Project Sleep Best - Our Rebellion Against Blue Light

Rationale - Why Rebel?

This year, as last year, we chose blue light radiation for our Bright Schools project.

Why did we choose blue light radiation? Why this enemy and not another? Well, 91% of teenagers have access to mobile devices, and computers. And 26% of said teens get less than 6.5 hours of sleep a night. (*Kids Wireless Use Facts*) Shockingly enough, these two statistics are related - a lot. The hours you spend around blue light is directly proportional to the amount of sleep you get. Blue light is a dangerous opponent, but it is a war we must win.



The ironic aspect of public awareness was that for creating a widespread campaign of rebellion against blue light, it would have to be online. Last year, we created a website that is now live on the Internet. This year, we decided to create our project to benefit the millions of people with mobile devices. Our goal was an app to accompany our site, as well as a video game.

Our project was to code an app and a video game. We found that no app creating program was suitable for our needs, so we planned one instead (see Methodology). Our video game was coded on the website *scratch.mit.edu*, and it follows a girl named Charlotte and her talking computer, Sam. Sam instructs the player on how to rid the room of blue light to help Charlotte. It is an interactive video game that teaches and is fun. The app was designed as an informative mobile version of our website. We hope to launch it in the near future (see Next Steps)

We created a site in the 2015-16 competition. We then decided that an app was necessary to further the revolution. Our goal was to educate the youth of America about this major issue - blue light radiation. Our mission accompanied that of the National Sleep Foundation, to improve global health and awareness with education programs about sleep, and the Circadian Rhythm.

Methodology - How the Rebellion Began

Project Sleep Best - Our Rebellion Against Blue Light

We researched first, for hours at a time, searching for the facts that would allow us to reach people best. What we discovered stunned us. It was quite sad how few people understood our enemy - blue light radiation from electronic devices. We had to liberate them from their self-inflicted bondage.

Planning began immediately. After research, and re-reading our own site for inspiration, we created a plan in Google Drive. Each slide was to represent a page or subpage of the app itself. Upon serious research of notable app making sites, including AppyPie, AppMakr, and iBuildApp, we decided that none were appropriate for our purposes. We wanted an app that would be in the App Store and everyone could access. One that would be more accessible. So the decision was reached to leave the app as a plan until we could further it (see Next Steps).

Then we began to program our video game. We coded most of the game in a few hours, working with the coding program to create a game that worked well and taught information in a brief amount of time. We formatted and designed every aspect of the game's appearance, finding appropriate color combinations and making sure every character looked exactly right.

If our rebellion was to succeed, we had to reach people and make a point. We needed others to understand the risks we saw so blatantly.

We spent many hours working in our school's library coding the game, planning the app, and writing the essays needed to properly explain our project. We also watched the videos and read the essays of the winning teams last year for advice on how to set our project up.

We also created links from our site to our app pages so that they can be accessed easily. Visit [Best the Blue Light](#) to play the game, and [Sleep Best Rebellion](#) to see our app.

Next Steps - Our Future Attacks on Blue Light

Project Sleep Best -
Our Rebellion Against BlueLight

Over the duration of this project we have accumulated valuable information on blue light and sleeping patterns. We have learned of the extent of mental poisoning our enemy has done.

In our next steps we would like to continue raising awareness of our revolution. This is why we plan to be able to publish our app on the *App Store* and *Google Play Store*. With knowing the need for phones in the millennial generation, we find having this app published is necessary to spread awareness in our day and age. In the United States the population is about 319 million people and the number of people who have phones are about 315 million people (*washingtonpost.com*). Therefore, this app is must be available to the people of our time. However, the flaw with this plan of attack on light is the funding. To have an app on the *App Store* it costs \$99 per year, and as students obviously do not have the money to fund that. Luckily, in the *Google Play Store* we could publish our app for a one-time payment of \$25. Therefore, our most realistic attack on light would to submit our app the the *Google Play Store*.

We would also like to continue to spread awareness by publishing our video game and making it available to download to the public. As a video game created on Scratch, it will take modifications to make it available to the public. Any user on the website can see our game, and play it to their heart's content, all the while learning how to be safe. As one of our group members said, the game is "very fun and hard to stop playing!"

We hope that with our video game and our app, we will be able to spread national, or maybe even global, awareness for the revolution on light. It is to be a worldwide rebellion by the people, for the people. We will educate the world. After all, blue light radiation is a global enemy.

Bibliography (MLA):

Project Sleep Best -
Our Rebellion Against Blue Light

- Breus, Dr. Michael J. "Blue Light Hazardous to Sleep, But Helpful to Daytime Functioning?" *The Huffington Post*. TheHuffingtonPost.com, n.d. Web. 04 Jan. 2016.
- "Circadian Rhythms Fact Sheet." - *National Institute of General Medical Sciences*. N.p., 1 Oct. 2015. Web. 05 Jan. 2016.
- "Cool Facts about Your Biological Clock | EarthSky.org." *EarthSky*. N.p., 03 Nov. 2014. Web. 18 Dec. 2015.
- Fontaine, Nicolas, O.D. "Shine the Light on Blue Light." *RSS*. N.p., n.d. Web. 16 Dec. 2015.
- Health Letter, Harvard. "Blue Light Has a Dark Side." - *Harvard Health*. Harvard, 1 May 2012. Web. 18 Dec. 2015.
- Health Letter, Harvard. "Too Little Sleep, and Too Much, Affect Memory - Harvard Health Blog." *Harvard Health Blog RSS*. N.p., 02 May 2014. Web. 04 Jan. 2016.
- Heiting, OD Gary. "Blue Light - Is It Really Bad For Your Eyes?" *All About Vision*. N.p., n.d. Web. 28 Jan. 2017.
- Holzman, David C. "What's in a Color? The Unique Human Health Effects of Blue Light." *Environmental Health Perspectives*. National Institute of Environmental Health Sciences, n.d. Web. 04 Jan. 2016.
- Hui, Victoria. "Blue Light: Digital Eyestrain - Long Term Consequences." *Destination Femme*. N.p., 18 Dec. 2014. Web. 28 Jan. 2017.
- "Just Get F.lux." N.p., n.d. Web.
- Khazan, Olga. "How Smartphones Hurt Sleep." *The Atlantic*. Atlantic Media Company, 24 Feb. 2015. Web. 18 Dec. 2015.
- "Kids Wireless Use Facts." *Kids Wireless Use Facts*. N.p., n.d. Web. 13 Jan. 2016.

Project Sleep Best -
Our Rebellion Against Blue Light

- Kim, Meeri. "Blue Glow from Electronics Can Keep You from Sleeping, and It's Particularly Hard on Teenagers." *Washington Post*. The Washington Post, n.d. Web. 18 Dec. 2015.
- Mary Singer, and Sara Carey. "Light Affects Sleep." *Light Affects Sleep*. N.p., n.d. Web. 12 Dec. 2016.
- "Melatonin." *University of Maryland Medical Center*. N.p., n.d. Web. 04 Jan. 2016.
- "Sleep Drive and Your Body Clock." *Body Clock & Sleep - National Sleep Foundation*. N.p., n.d. Web. 28 Jan. 2017.
- "Why Night Lights Aren't Healthy for Kids Sleep." *Wellness Mama*. N.p., n.d. Web. 04 Jan. 2016.
- Zee, Phyllis C., and Michael V. Vitiello. "Circadian Rhythm Sleep Disorder: Irregular Sleep Wake Rhythm Type." *Sleep Medicine Clinics*. U.S. National Library of Medicine, n.d. Web. 04 Jan. 2016.