

# Let There Be Night Analysis

Thank you for your participation in *Let There Be Night*, a community-wide science experiment to measure local light pollution. With the data-gathering portion completed, you can now interpret the data you collected. The analysis--a key component of the scientific method--is the final step in this project.

## Interpretations:

1. Why did we do this experiment? What were we trying to measure?  
To see how much light pollution we have across our school district.  
How much of the night sky have we lost?
2. What do you believe an ideal night sky should look like?  
Answers will vary. E.g., could see more stars; could see the Milky Way.
3. Do we need outdoor lighting? Why or why not?  
Yes, in a modern society we need it for safety, personal security, commercial displays, signage, etc.
4. What happens to the night sky if there is a lot of artificial outdoor lighting?  
We can't see as many stars. The sky has a white or orange-ish glow.
5. What is at risk from light pollution?  
Light pollution prevents us from seeing more stars; damages the predator-prey relationship for nocturnal animals; affects our health; hinders our personal security and safety; drives up energy costs; increases our carbon footprint and increase our consumption of coal and oil.
6. Do we have the perfect night sky? Why or why not?  
No, we can't see all the stars we should see, compared to the Orion star chart. Excessive and misdirected lights create sky glow, which washes out the dark sky.
7. What are possible solutions to glare, light trespass, and sky glow?  
Turn off or dim some lights; shield lights; use bulbs with lower lumens (light output); install motion sensors and timers.
8. Should we, as a community, change our impact on the night sky, and if so, what should we do?  
Answer is for students to decide. In addition to changing one's own outdoor lighting practices, options include starting dialogue with neighbors, local businesses, and government leaders.



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