



DALLAS ARBORETUM  
Education

*Garden STEM at Home*  
*Lights Out!*



WE GROW MINDS, TOO.

## LIGHTS OUT!



### OBJECTIVE:

STUDENTS WILL DEFINE LIGHT POLLUTION, DESCRIBE THE ADVERSE EFFECTS IT HAS ON WILDLIFE; AND DEVELOP A PLAN TO REDUCE THE ADVERSE EFFECTS OF ARTIFICIAL LIGHT.

### SOURCE

Project WILD K-12 Curriculum & Activity Guide

### BACKGROUND

Today, it is uncommon for many to see a clear view of the night sky, and its previously well-known features including the Milky Way, meteor showers, the Northern Lights or constellations. While previously common knowledge for generations, many have grown up in cities or industrial areas that are filled with artificial light.

Lack of star-viewing is far from the only effect of artificial light. In fact, this light pollution can have negative cultural, economic and environmental impact.

Learn more from Globe at Night and Dark Sky below.

### INSTRUCTIONS

1. Share photos or video of the Milky Way and stars. Then, either show or explore the night sky here in North Texas. Discuss the differences you observe. Which setting would students prefer to be in? What about wildlife? Why?
2. Ask students to define pollution. How would they define light pollution?
3. What are the positives of light pollution for humans?
4. Discuss how light pollution may affect wildlife? How does it affect diurnal, crepuscular and nocturnal animals?
5. Ask students to pick a local animal and discuss how it may be impacted by light pollution.
6. Using the student sheet below, complete a light audit of your schoolyard, neighborhood or backyard. Which types of lights are present? How do these impact wildlife?
7. Discuss how students, families, communities or schools can reduce light pollution. Create an action plan to share with others.

### ADDITIONAL RESOURCES

Project WILD Lights Out! Student Pages:

[https://www.fishwildlife.org/application/files/8615/2935/0859/Types\\_of\\_Lighting\\_Fixtures.pdf](https://www.fishwildlife.org/application/files/8615/2935/0859/Types_of_Lighting_Fixtures.pdf)

[https://www.fishwildlife.org/application/files/4915/2935/0887/Dark\\_Sky\\_Hero\\_-\\_Susan\\_Harder\\_Case\\_Study.pdf](https://www.fishwildlife.org/application/files/4915/2935/0887/Dark_Sky_Hero_-_Susan_Harder_Case_Study.pdf)

Project WILD Lights Out! STEM Connections:

<https://www.fishwildlife.org/projectwild/step-stem-and-wild-work/lights-out>

Globe at Night online resources:

<https://www.globeatnight.org/light-pollution.php>

Dark Sky resources:

<https://www.darksky.org/light-pollution/>