

## LIGHT POLLUTION CHALLENGE | TEACHER GUIDE



### Activity Overview:

In this activity students will have the opportunity to practice cutting and coloring while they make a Change is Simple storybook inspired by the beloved story “The Very Hungry Caterpillar” by Eric Carle. This story encourages students to continue thinking about how light pollution impacts animals following their light pollution lesson. Once completed, students will bring their storybook home and read it with an adult!

**Prep Time:** 5 minutes

**Activity Duration:** 1 hour

## STANDARDS ALIGNMENT

### NGSS

- *K-ESS3-1: Use a model to represent a relationship between the needs of different plants and animals (including humans) and the places they live.*
- *K-ESS3-3: Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.*

### MA Comprehensive Health

- *2.7.CE.1: Identify the impact of personal activities that contribute, positively or negatively, to the environment*
- *2.7.CE.4: Encourage peers and family members to make choices to help protect the environment (e.g., recycling, using less water, turning off the lights)*

## MATERIALS NEEDED



- *Safety Scissors*
- *Coloring materials*
- *“The Very Distracted Sea Turtle” template printed [here](#)*
- *[Storybook how-to video](#)*



## BACKGROUND INFORMATION

Light pollution is any excessive or misdirected artificial light that brightens the night sky and disrupts the natural darkness of the environment. It occurs when artificial lights, such as streetlights and car lights spill over and create a glow that obscures the view of stars and interferes with the normal day-night cycle of the natural world.

Nocturnal animals are creatures that are primarily active during the nighttime. These animals have evolved specific adaptations, such as enhanced night vision and keen senses, to thrive in the darkness, and they play crucial roles in various ecosystems. Examples of nocturnal animals include bats, owls, and certain species of insects.

Nocturnal animals like bats, and other animals like sea turtles, are significantly impacted by light pollution. Bats rely on darkness for their hunting and navigation. Artificial lights can disorient them, making it challenging to know what time of day it is, catch insects, or find their way home. Sea turtles, on the other hand, are attracted to artificial lights on coastal shores, leading hatchlings away from the sea, and adult turtles can become disoriented when searching for suitable nesting sites. These effects of light pollution can disrupt their natural behaviors, endanger their populations, and harm the ecosystems they inhabit.



## INSTRUCTIONS

1. Hand out necessary coloring materials, and hand each student their storybook template.
2. Explain to students that they will be coloring their own storybook which will later be brought home so they can read it with an adult!
3. Give students time to color their storybook.
4. Once students have finished coloring, play the [video](#) which shows how to fold and cut the template. This will result in a mini book for students!
5. Borrow one student's story (or make your own class copy!) and read the class the story once they are done coloring and assembling their stories.
6. Completed stories should be sent home for adults to read with their student!

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