



## Box of Stars

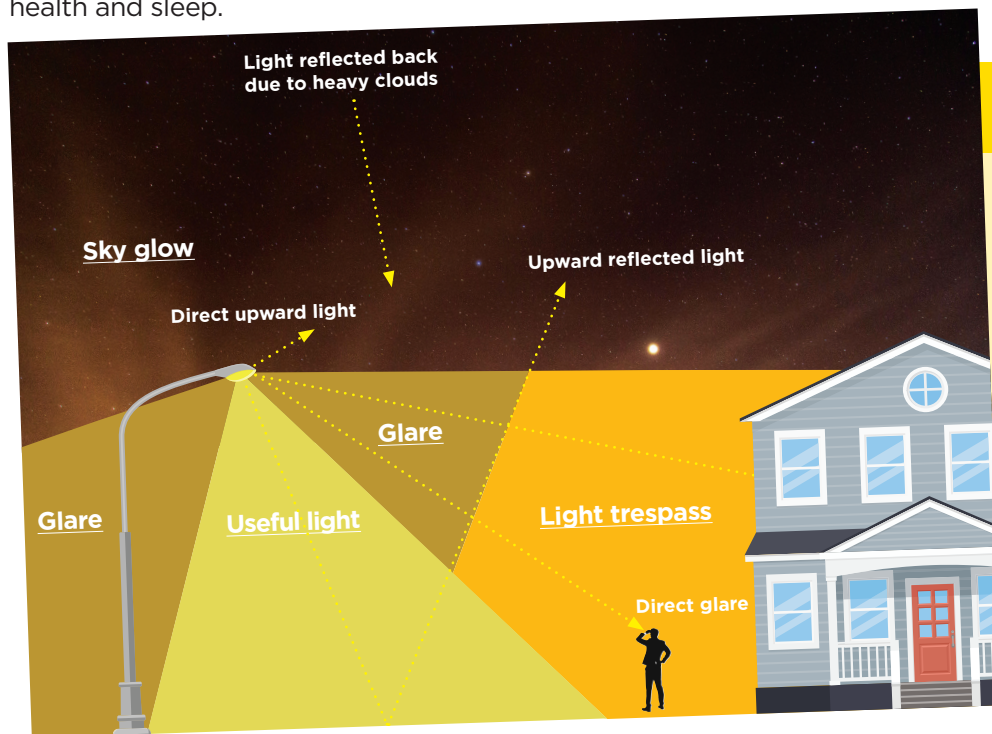
### DID YOU KNOW?

Our night skies are full of stars, planets, galaxies, and other objects. Throughout history, many cultures have grouped together some of these night sky objects to form pictures in the sky, also known as constellations. These pictures tell stories to help people know different things like planting times, the different seasons, finding their way over land and the sea, and more. The constellation on this sheet is called Leo, known as the lion constellation.

When lots of lights are on at night where we live, it can change the way we see the night sky. This extra light is called light pollution, and it not only makes it hard to see the stars at night, but it can also affect animal migratory patterns and our health and sleep.



Image courtesy of Stellarium.



**There are three main types of light pollution:**

#### SKY GLOW

scattered glow of light in the night sky

#### GLARE

unshielded scattered light from useful light that spreads out in many directions

#### LIGHT TRESPASS

unwanted light that spreads across other people's property and into windows

### HERE'S WHAT YOU CAN DO

Light pollution can affect our sleep patterns which can be harmful to our health overtime.

- LED light bulbs in the house and computer screens use blue light which can keep you awake, so limit their use, especially at night.
- Turn off lights outside that are not critical or point them downward and toward the object you want to illuminate.
- Talk with neighbors and your community about reducing unnecessary outdoor lighting to limit all the types of light pollution.

### FIND OUT MORE

Learn more about light pollution at these websites so that you can learn how to lessen the effects.

- Visit [www.globeatnight.org](http://www.globeatnight.org)
- Visit [www.darksky.org/light-pollution/](http://www.darksky.org/light-pollution/)

# ACTIVITY: MAKE A BOX OF STARS



Image courtesy of Stellarium.

## What You Need

- Shoe box with lid or similar box
- This sheet with Lion (Leo constellation)
- Sharp pencil
- Small flash light
- Tape
- Scissors (optional)

## Instructions

- 1** Set this sheet on top of your box, and tape it down with a few pieces of tape to keep it in place.
- 2** Poke holes through the Leo constellation sheet and into the box using your sharp pencil. Make the holes of the 9 major stars to start (round bright dots and not the lines), but add more holes for the smaller dim stars as needed to see the light come through once you turn off the lights in step 3.
- 3** Turn on the small flashlight and set it inside the box. Turn off the lights in the room you are in so that the room is dark, or go into a darker room. Wait a few minutes for your eyes to adjust to the dark. Set the box near a wall.  
*Do you see the star light coming out of the holes in the box?*
- 4** Turn on the lights in the room, and see how the stars are drowned out by the room light. That is like light pollution at night.

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