



INFORMATIONAL READING COMPREHENSION

Where Are the Stars?

Read the passage and answer the questions that follow.

- 1 When you look up at the night sky, what do you see? If you're like 80% of people around the world, or 99% of Americans and Europeans, you likely see little more than **skyglow**. This artificial brightening of the sky masks the stars, obscuring the wonder of the night sky.
- 2 The night sky has played an important role in human life for thousands of years. Ancient peoples named the constellations, spinning stories about them to pass along their societies' values and cultural traditions. Around the same time, Polynesian sailors used the sun and stars, along with weather patterns and ocean currents, to navigate on long ocean voyages. Later, the Maya civilization used the position of the stars to predict the changing of the seasons, allowing them to better plan their agricultural practices. And in the 19th century, conductors on the Underground Railroad used the North Star, Polaris, as a guide to help people escape from slavery in the southern United States. The ability to observe the stars and planets clearly in the night sky has played a major role in the development of culture, science, economies, and more.
- 3 But today, few people are able to marvel at the humbling sight of a sky full of stars. Views of the Milky Way—the hazy, thick band of stars that is our home galaxy—are particularly rare. Only places with very dark night skies offer views of this celestial wonder. Yet it was only about a century ago that nearly everyone alive could look up from wherever they stood and see countless stars filling the dark night sky. So what happened?
- 4 Light pollution is the culprit. When artificial light spills into the night sky, it hides the stars. This excess light streams from streetlights, housing developments, office buildings, stores, and gas stations. It comes from stadium lights on sports fields; large, flashing billboards that never go dark; and brightly lit but empty parking lots.
- 5 Of course, people in modern societies need to light the night. Nighttime driving, walking, working, exercising, and more are all made safer with artificial outdoor lighting. However, too much light at night can be harmful. Not only does it conceal the wonders of the night sky, but it also disrupts our natural sleep patterns, causing greater risk of cancer and heart disease. It also confuses animals, who rely on dark skies and the stars for migration, reproduction, and hunting activities.



Have you ever seen the Milky Way at night? Due to light pollution, our home galaxy is less visible in many places than it once was.

- 6 That said, light pollution can be greatly reduced with a few relatively simple actions. The first priority is to stop wasting light. Outdoor artificial lights can be shielded, or covered, so that the light shines down to the ground only where it's needed. People can be more mindful about using lights only when and where they are necessary, and turning lights off when they're not in use. Additionally, people can select light bulbs with the smallest effective amount of brightness. Most bright white lights, including LEDs, emit a large amount of shorter wavelength blue light, which brightens the sky more than any other color of light. Choosing light bulbs with warm-colored, longer wavelength light in the yellow or orange light spectrum can help prevent harmful light pollution.
- 7 An Arizona-based organization called the International Dark-Sky Association (IDA) wants to help everyone make these changes. IDA's mission is to eliminate light pollution and thereby preserve and restore our dark night skies. The IDA works with communities and governments in the United States and around the world to change how they light the night. The IDA certifies official dark-sky places and works to keep those skies dark.
- 8 The IDA has certified over 130 International Dark-Sky Places (IDSPs), and more are going through the multi-year process to become certified. These efforts not only save energy but also satisfy people's craving to gaze in wonder at the stars, planets, and galaxies. By making just a few small changes, these communities will help bring the stars back to their night skies.

