

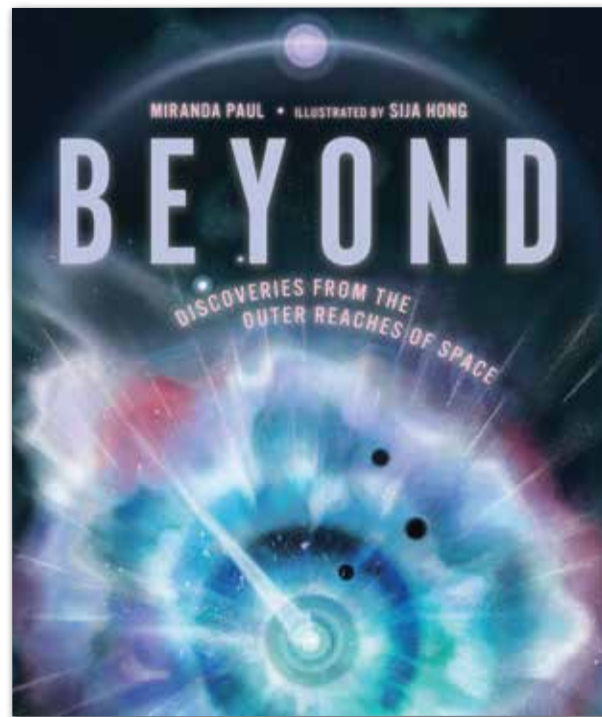
# BEYOND

## ***Beyond: Discoveries from the Outer Reaches of Space***

Written By Miranda Paul - Illustrated By Sija Hong

A LESSON PLAN AND ACTIVITY GUIDE  
FOR EDUCATORS AND PARENTS

Go Above and BEYOND—  
Community Science, Space, and You!



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# Go Above and BEYOND— Community Science, Space, and You!

**Community Science** is when ordinary people – kids, adults, and the general public—participate in or contribute to the work that scientists and researchers are doing.

A lot of **Community Science** projects involve things on Earth like:

helping  
pollinators,


reducing  
pollution,

or counting  
birds

But we're also invited to help out with projects in space!

In the book *Beyond: Discoveries From the Outer Reaches of Space*, by Miranda Paul, the text shows us that our universe is beautiful but mysterious. Humans have a lot more to learn about space. In order to make new discoveries, we need to support and help astronomers and astrophysicists, the scientists who study space.





Here are some important ways you can help scientists with their work right now—no experience needed!

## 1. NASA Community Science Projects

From planet-hunting for new worlds to examining discs around stars, log on to a computer choose from a handful of already-created **community science** projects.

1. Log on to <https://exoplanets.nasa.gov/citizen-science>
2. Read the descriptions of the projects, and click the one that interests you
3. Follow the instructions carefully (it helps to have a grown-up with you when you start a new **community science** project)

## 2. Reduce Light Pollution

Another activity that helps astronomers is reducing light pollution. Light pollution is the inappropriate or excessive use of artificial light by humans.

**Light pollution can:**

- reduce your view of the stars
- affect wild animals' habits such as sleeping, eating, mating, or migrating
  - interfere with human rhythms, such as sleep cycles
  - use extra electricity (and the fuel needed to make it)



Many **community scientists** are helping to reduce the amount of light that homes, parks, cities, and people shine after the sun goes down.

Here are six ways **YOU** can help reduce light pollution:

1. Turn off lights (especially outdoors) when not using them
2. Point screens, flashlights, or other outdoor lights down toward the ground
3. Ask grown-ups to use only glow stones or IDA approved light fixtures outdoors
4. Contact your elected officials and tell them reducing light pollution is important
5. Visit a Dark Sky park to see for yourself how beautiful the sky is without light
6. Tell friends, family, and classmates what you've learned about light pollution

To learn more about light pollution, visit: <https://www.darksky.org/light-pollution/>

**Bonus Step** – share the community science work you're doing with *Beyond* author Miranda Paul and ask a grown-up to tag @Miranda\_Paul on Twitter or @mirandapaulbooks on Instagram!



Miranda Paul is the award-winning author of more than a dozen books for children, including *One Plastic Bag* and Boston Globe–Horn Book Honoree *Nine Months Before a Baby Is Born*. Miranda is a founding member of We Need Diverse Books and serves as its mentorship chair. Learn more at [mirandapaul.com](http://mirandapaul.com).



Sija Hong is an award-winning Chinese illustrator who once dreamed of being an astronaut. As she created this book, she drew on all her love and passion for the universe. The scope of her work includes magazines, murals, games, and apps as well as books. Sija lives in New York City, and *Beyond* is her US debut. [sijahong.com](http://sijahong.com)

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