

Space for Everyone

Diverse People and Skills
Create Big Astronomy



Have you seen beautiful astronomy images like this one?

Where do they come from? Is it possible to take one with your phone?



Where are the telescopes?

Who brings us these images?

(Hint: It's not a lone astronomer.)

Many people work to bring us the Universe.

All of the people on this banner work together to capture the beautiful images we see. Astronomy takes the efforts of groups from all over the globe, such as



- Technicians and engineers to run the observatory
- Astronomers to interpret the data
- People to house and feed astronomers
- Communicators to share discoveries

Becoming an astronomer is one way to learn more about the sky. There are also many other ways to participate in the joy of astronomy – there is space for everyone! How will you engage with our Universe?

- Learn more about Big Astronomy (bigastronomy.org)
- Join an astronomy club near you (nightskynetwork.org)
- Visit a planetarium or science museum (astc.org)
- Do some Citizen Science (scistarter.org)
- Borrow a library telescope (librarytelescope.org)
- Get inspired by Astronomy Picture of the Day (apod.nasa.gov)



A color-composite image of the Pleiades from the Digitized Sky Survey. Credit: STScI, Images: NASA/ESA/AURA/Caltech

Notes for the Presenter

“Space for Everyone” Banner

Time: 5-15 minutes
Visitors: General audience, ages 7+, groups of 1-10
Venue: daytime or inside, need a place to hang the banner, display cards

In this activity, visitors will explore the banner and learn about the people involved in sharing Big Astronomy, and see how everyone can contribute to astronomy in different ways.

Goals:

1. Connect facilitators with their visitors' interests.
2. Understand how big teams work together make astronomy happen.
3. See how every individual can contribute to the study of astronomy.

Materials (Print all of these resources at bit.ly/bigastro)

- Banner & place to hang it with straps or cord
- Beautiful space image of your choice
- Four sheets describing people on banner
- Small cards to give away for followup

Facilitation Notes

This activity is good for opening a star party or outreach session. Making people feel capable and included is a great way to start your event!

Steps:

- Share the space image with visitor.
- Where do images like this come from? (Answer may be a telescope or an astronomer or something similar.)
- Where are these telescopes located and why? Why do you think these telescopes are so far away? (Telescopes need clear dark skies, less atmosphere, no light pollution - Chile is a great location!)
- Is it a lone astronomer? No - all of these people (indicate banner) make these images possible. (Share four sheets with audience and discuss their interests and how they might relate to astronomy.)

Some people think they need a lot of math and years of school to do astronomy. But astronomy needs all kinds of people -- amateur astronomers, Citizen Scientists, teachers, writers, artists, enthusiasts, politicians, everyone! Exploring the Universe is a big job, and we need all hands on deck!

Conclude interactions by giving visitors a way to learn more with the small cards.

Background Information

The National Park Service has a motto for their programs:

Connect ~ Protect ~ Inspire

Connecting our audience with astronomy is the first step to having them protect the night sky and be inspired by the Universe. *If we make astronomy relevant and accessible to their lives, we can start building those connections.*



You can take a free introductory course from the National Park Service here: <https://www.nps.gov/idp/interp/theprogram.htm>

Virtual Presentation Tips

The banner and cards can be shown online. A quick way to engage virtual visitors is to show the banner and ask “Who on this banner does astronomy?” See more resources on the Night Sky Network: nightsky.jpl.nasa.gov

Additional Resources

- Where can I learn more about the banner and jobs in astronomy?
- Go to the Big Astronomy website: <https://www.bigastronomy.org/> for interviews with participants in the Big Astronomy planetarium show and to see how their jobs support astronomy.
- The International Astronomical Union gives information about careers in astronomy: iau.org/public/themes/careers/
- The Bureau of Labor and Statistics give an overview in [Space Careers: A universe of options.](#)
- Hear interviews with Gemini Observatory staff: gemini.edu/careers



Big Astronomy is supported by the U.S. National Science Foundation (Award #: 1811436)