



# GIRLS STEAM AHEAD WITH NASA

NASA'S UNIVERSE OF LEARNING

<https://www.universe-of-learning.org/gsawn>

## Summary of Resources

Help your community explore the wonders of NASA science, and celebrate the contributions of women to STEM with [Girls STEAM Ahead with NASA](#)! Host events, work with subject matter experts, and access astronomy posters and exhibits. Events and resources are open to all family members, all year long, but focus on engaging girls. Select resources, available from [NASA's Universe of Learning](#), are described below. Find this guide and more online at [Girls STEAM Ahead with NASA](#). Contact us at [girlsSTEAMahead@universe-of-learning.org](mailto:girlsSTEAMahead@universe-of-learning.org) to learn more or to host an event.

**Hands-on Activities & Guides:** Explore key concepts with these paper and pencil activities

- [Exoplanet Trading Cards](#)—Print your own exoplanet card deck; includes an [activity guide](#)
- [The Expanded Universe: Playing with Time](#)—Create a model of the expanding universe ([also in Spanish](#))
- [Binary Code](#)—Make binary name tags, pins, and bracelets that reinforce coding skills
- [TRAPPIST-1 System Scale Model](#)—Compare solar system sizes with printable cards ([also in Spanish](#))
- [Paper Circuits](#)—Create simple paper circuits related to stars using printable templates

**Computer-based Activities:** Engage in the process of science using real NASA data

- [DIY Planet Search](#)—Join the search for exoplanets by using an online telescope
- [Recoloring the Universe](#)—Learn the basics of coding and colorize astronomical images
- [Observing with NASA](#)—Use robotic telescopes to collect your own space images and process them
- [3D Printing the X-ray Universe](#)—Use Tinkercad to explore coding and spatial relationships; 3D printer optional

**Multimedia & Interactives:** Support immersive learning experiences

- [Reach Across the Stars](#) (AR app)—Meet your female space and science heroes virtually
- [AstroPix](#)—Find the right astronomy image with this one-stop interface
- [ViewSpace](#)—Explore astronomical concepts with [videos](#) and [interactives](#)
- [Eyes on Exoplanets](#)—Visit thousands of unique worlds outside of our solar system
- [Exoplanet Travel Bureau](#)—Explore the surface of exoplanets through VR and 360° videos ([also in Spanish](#))
- [Universe Unplugged](#)—Experience the universe with videos that entertain and inform

**Posters & Exhibits:** Create engagement and excitement in your space (*Many available for download. Physical copies limited.*)

- Posters
  - [Women in STEM Poster Series](#) ([also in Spanish](#))
  - [Women of Color: Pioneers and Innovators](#)
- Exhibits
  - [Here, There, Everywhere](#) ([also in Spanish and Korean](#))
  - [AstrOlympics: Winter & Summer](#) (includes supplemental videos; [Summer also in Spanish and Portuguese](#))
  - [Light: Beyond the Bulb](#) ([also in Spanish, Portuguese, and German](#))
  - [From Earth to the Universe](#)

**GSAWN Program Cookbook:** Get event support with this facilitator's guidebook; includes [facilitator scripts](#)

**Webinars:** View recorded webinars to explore activities, learn best practices, and hear from NASA scientists and engineers