

Tips for Astronomers from Confidence and Curiosity: Girls at the Telescope

General Outreach:

- Use a friendly, encouraging tone of voice.
- Know that you have a unique opportunity to show how astronomy welcomes everyone.
- Use simple direct language and where possible, avoid specialized terms or define them.
- Share stories of female astronomers of diverse backgrounds.
- Be mindful of the micromessages you may send.

Growth Mindset:

- Practice makes growth! Give feedback that focuses on efforts. Saying, “You’re so smart,” is much less helpful than, “I like how you’re trying.”
- Yet is a powerful word. “I can’t do it...yet.” Your encouragement can help girls have powerful astronomy experiences.
- If you see someone practicing a scientific skill, mention it! Be specific: “You are star hopping – that’s a big part of learning the sky!” “I like how you are making observations. That’s doing science.”
- Focus on progress, not perfection.

Ask a question:

- **To understand their experience:** “Have you looked through a telescope before?” “Do you know any fun facts about Jupiter?”
- **To make a connection,** ask girls about interests outside astronomy, such as hobbies, school, or popular culture: “Have you been in Girl Scouts for long?” “What is your favorite subject at school?”
- **To keep it girl-led:** “What would you like to see next?”
- **To support developing science skills** have girls consider possible answers to *their own questions*: “What do you think?” “What do you see/know about Saturn?” “What have you noticed?”

Addressing misconceptions:

Ensure you are working to create a space where girls can voice their ideas freely. Girls who have felt discouraged by others or fear being “wrong” may be reluctant to engage or speak.

- Keep corrections gentle and factual.
- If a girl is partially right, mention the part she has correct first.
- If you hear a misconception, start with a question, rather than a blanket statement of wrongness: “That’s interesting. Why do you say that?”
- Frame suggestions in a way that isn’t personal: “The telescope needs to be focused” rather than, “You focused it wrong.”