Learning Outcomes for
Girl Scout Leaders' Workshop in Hands-on Astronomy

By the end of our astronomy workshop, you should be able to ...

1. **Stimulate girls' interest in science, astronomy, and the night sky.**
2. **Demonstrate confidently how scientific reasoning is used in our daily lives using real examples.**
3. **Convey that science is exploration, not memorizing facts and figures.**
4. **Recognize "pseudoscience" and explain how it differs from authentic science using examples.**
    a. Encounter and address misconceptions.
5. **Integrate STEM thinking, and language, into ALL your troops' activities.**
    a. Explain why "STEM" is a unifying idea, not separate subjects.
    b. Develop your own activities to emphasize the techniques of scale-modeling and classification.
6. **Inspire others to overcome anxieties about science, technology, engineering, and math.**
    a. Look at these topics as universal tools rather than subjects only smart people understand.
    b. Convey that no group in society is inherently better or worse at thinking about and doing STEM work.
    c. Women have always been involved with STEM. Their contributions have not always been recorded or recognized and so it may *appear* that they have only recently started "making their mark."
    d. Feel confident enough to teach these topics even if you are not an "expert" in them.
7. **Integrate numerical thinking, and language, into ALL your troops' activities.**
    a. Demonstrate through personal example that the language of numbers, and proportional thinking, are vital tools in all aspects of life.