

Girl Scout Sky Search Badge Workbook

Requirement:

1. Learn how to use a star map. Be able to point out to others what the different symbols on the map mean. Obtain a star map for your stargazing location and the appropriate time of year to help you complete this badge. Many local newspapers have a star watch map, or check with your library.

7. Some constellations are only visible during certain times of the year. Make a schedule of which ones are seasonal and when they would appear. Explain why this happens.

Activity:

- Visit the Adler Planetarium Sky Watching website
- Research information on the Internet

Learn more about constellations and star maps online by visiting the following website:

<http://www.adlerplanetarium.org/investigate/skywatch>

Use the Internet to research some constellations that are visible year round. List them below.

Why are some constellations only visible during part of the year? As the Earth revolves around the Sun, the Earth faces different directions, so we see different parts of the sky at different times of year.

Name the constellations that would appear at the following times:

February 1 at 10 pm:

May 1 at 10 pm:

August 1 at 10 pm:

November 1 at 10 pm:

Requirement:

2. Learn which of the nine planets are visible to the naked eye. Try to locate at least one of these during your star gazing adventure.

Potential Activities:

- Research information on the Internet
- View a **Night Sky Live** Show
- Night sky viewing

List the 5 planets that are visible to the naked eye:

1. _____

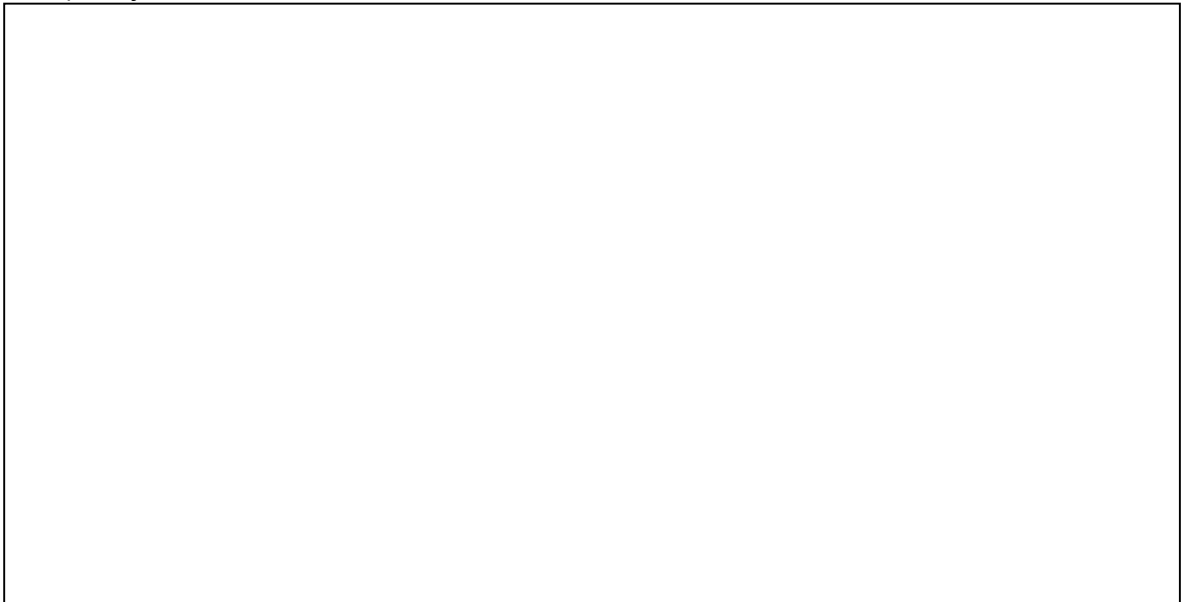
2. _____

3. _____

4. _____

5. _____

Go outside at in the evening and draw a sketch of the position of at least one of the planets. Label the planet and the cardinal directions (North, East, South and West) on your sketch and record the date and time.



Requirement:

3. Look at the star map and choose six constellations. Note any distinguishing features such as size, shape, number and brightness of the stars. With the help of a star map, locate the constellations in the sky, then point these out to others.

Potential Activities:

- View a **Night Sky Live** Show
- Visit the **Atwood Sphere**
- Night sky viewing

What are the names of the six constellations you choose? What distinguishing features do each one have?

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

Requirement:

4. Find out why being able to locate the North Star is important. Help others in your troop locate the North Star. Learn how to use the stars to find directions.

Activity:

- Research information on the Internet

Use the space below to sketch the position of the North Star and the constellation that it is part of.



Why is the North Star different from other stars?

Why is it important to be able to locate it?

Requirement:

6. Learn why some stars appear to be brighter or bigger than others. Find out about the different colors stars appear to have. For example, the constellation Orion contains stars that are bluish white and reddish, as well as all white. Find stars that change in brightness.

Activity:

- Research information on the Internet

Use the space below to sketch the position of red, white, and blue stars in the constellation Orion.



Use the space below to record the name and location of a star that changes in brightness.

Requirement:

8. Explain to your troop/group or others what a solar system is. Be able to describe the differences among planets, a sun, a moon, and stars.

Learn which planets, asteroids, moons, and sun make up our solar system.

Activity:

- Visit the **Our Solar System** Gallery

What do you think a solar system is? Write and draw your answer below.

What are the differences between planets, the sun, the moon and stars?

Requirement:

10. Learn how to tell time using a simple sundial.

Activity:

- Explore the **Universe in Your Hands** gallery
- Research information on the Internet

Write about and draw a picture of one of the sundials on exhibit in the **Universe in Your Hands** gallery.

