

Brownie Space Explorer Try-It Badge Workbook

Requirement:

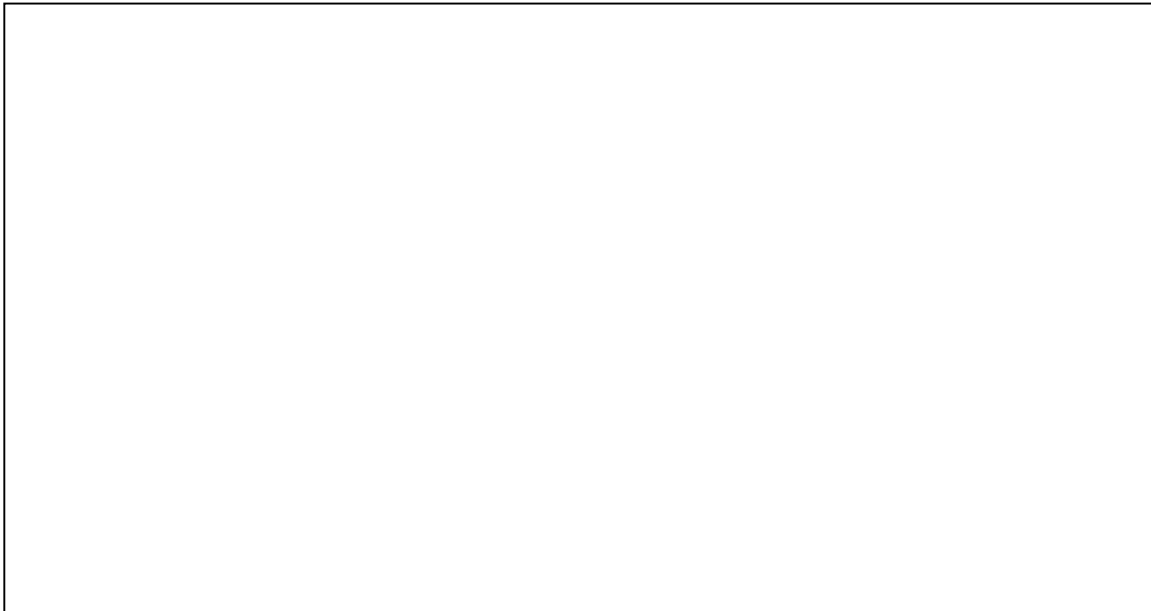
1. The Night Sky - Go stargazing with an adult who knows the planets and the stars, or have an adult help you read a star map. Try to find the North Star, the Big Dipper, the Little Dipper, or other groups of stars. (They are called *constellations*.)

Potential Activities:

- View a **Night Sky Live** show
- Visit the **Atwood Sphere**
- Participate in the **Make a Star Finder** activity during Astro-Overnight
- Use the Internet to research and learn more about star maps

View a **Night Sky Live** show or visit the **Atwood Sphere** to locate the North Star (Polaris), the Big Dipper (Ursa Major), and the Little Dipper (Ursa Minor).

Draw a picture of where the Big Dipper, Little Dipper and North Star appear in the sky right now.



A D L E R
P L A N E T A R I U M

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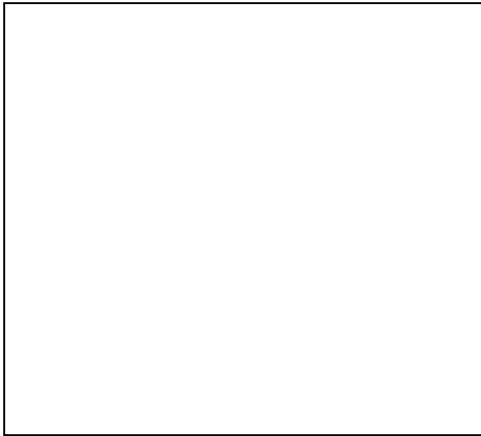
2. The Moon - Why does the moon look like it changes shape? One week it is full. The next time you see a half-moon. The moonlight you see is the sun shining on one side of the moon. As the earth and moon move around the sun, you see the moon in different places. You also see the parts of the moon that get sunlight. Draw the moon on the same day of the week for four weeks. What did you see?

Activity:

- Visit the Adler Planetarium website to learn more about Moon Phases. <http://www.adlerplanetarium.org/investigate/explore/solarsystem>

Draw a picture of the moon during each of the following phases.

New Moon (Week One)



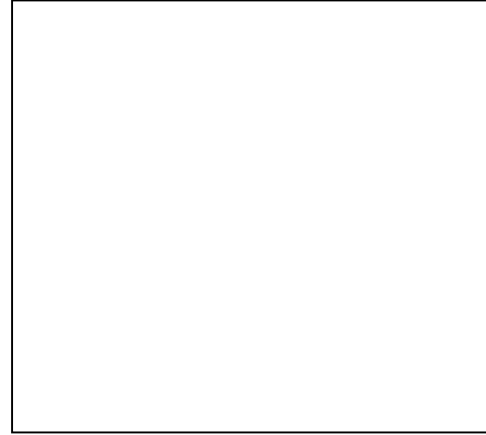
First Quarter (Week Two)



Full Moon (Week Three)



Third Quarter (Week Four)



Requirement:

3. Ready, Set, Jet! - Pretend that you are on a journey to a Girl Scout center on the Moon. How would you dress for space? How would you move in space? Draw or create a costume for your journey. Show your drawing to others. Be ready to answer questions about your space outfit.

Activity:

- Explore the **Shoot for the Moon** and **Our Solar System** Galleries

To find out more about the Moon, you can do some research in the **Shoot for the Moon** gallery and **Our Solar System** gallery on the Upper Level. Write any information here that can help you design your space suit for the Moon.

What would your space suit look like? Draw a sketch of it.



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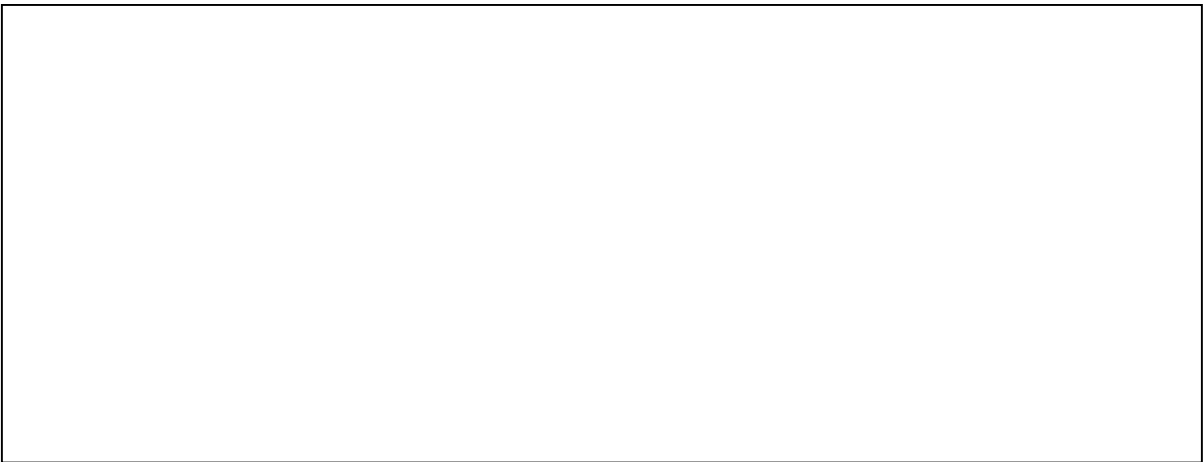
4. Shadow Time - Did you know that the earth rotates? It turns around much like a top. Have you seen the sun in different places in the sky? It looks like the sun is moving, but it is the earth that is moving.

Activity:

- Research and learn more about sundials on the Internet
- Visit the **Universe in Your Hands** gallery

How will the shadows created change throughout the day?

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



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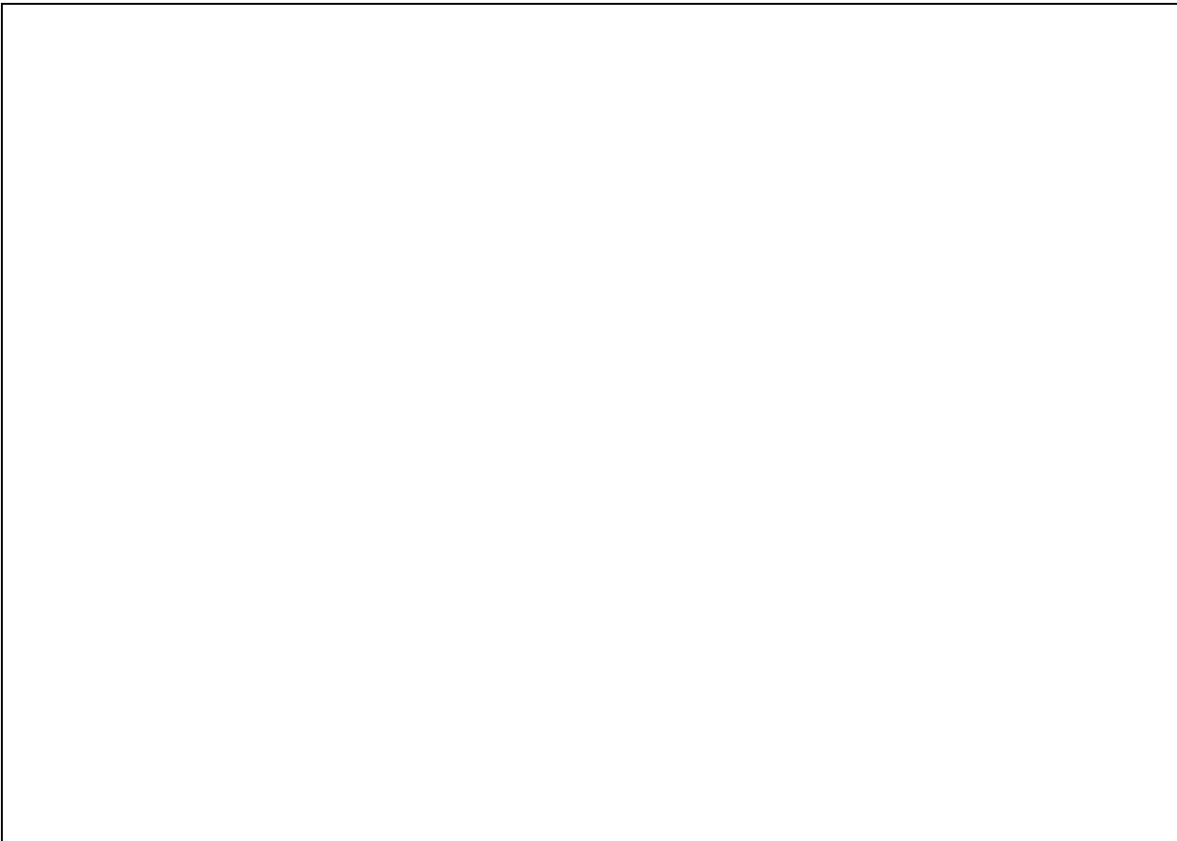
5. Star Maker - Pick a favorite constellation, or create a pattern of stars to make your own indoor star show!

Activity:

- View a **Night Sky Live** show
- Visit the **Atwood Sphere**
- Participate in the **Make a Star Finder** activity during Astro-Overnight
- Research constellations on the Internet

Which star pattern do you want to choose for your star show?

Draw the pattern below.



Directions for making the container for your constellation show should be in your Try-It materials.