

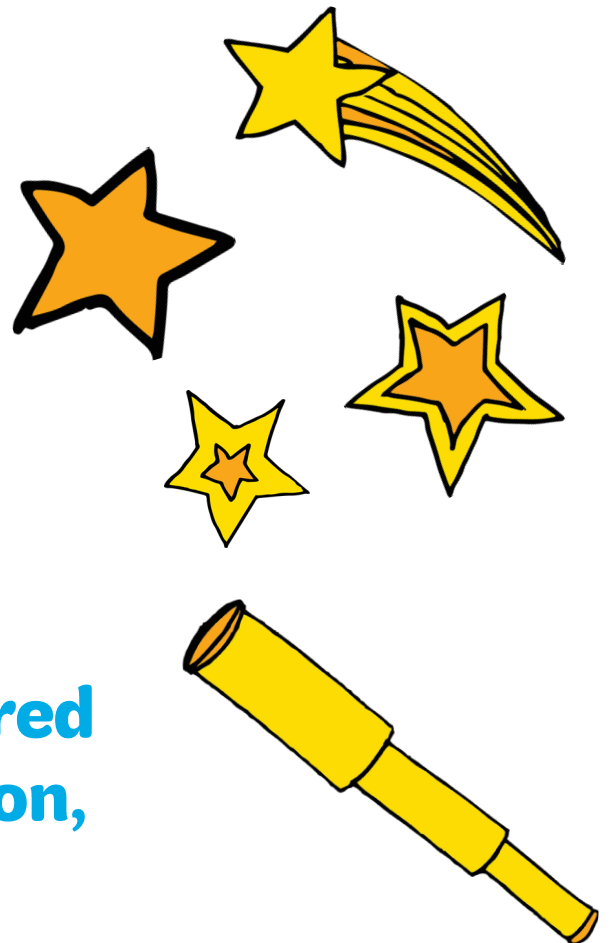


Daisy Space Science Explorer Badge

STEPS

- 1. Explore the Sun**
- 2. Observe the Moon**
- 3. Meet the stars**

When you've earned this badge, you will have explored and observed the Sun, Moon, and stars.



Space scientists are people who study outer space—what’s in the sky. In this badge, you can be a space scientist as you look at the sky and talk about what you see!

Download the official Daisy Space Science Explorer Badge Booklet [here](#).

Thank you to our program partner, Rauch Planetarium, for offering great space science education resources used in this badge packet! Check out their [Facebook Page](#) to explore even more space topics while you’re Girl Scouting at home.

STEP 1: EXPLORE THE SUN

Have you ever heard the words “sunrise” and “sunset”? That’s how we describe the Sun coming up in the morning (sunrise) and going down at night (sunset). But did you know that the Earth—the planet where we live—is actually spinning like a top in space? That’s why the Sun seems to move across the sky. On the part of the Earth facing the Sun, it’s day. On the part facing away, it’s night. Wow!

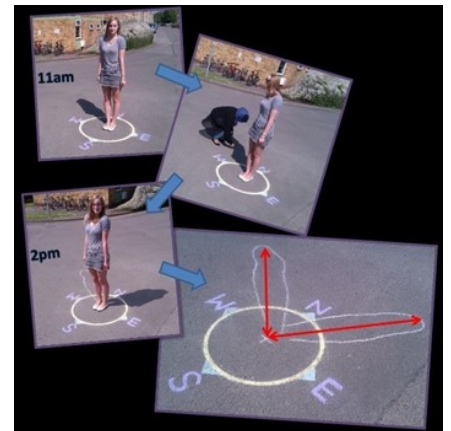
Watch these videos by clicking on the titles!

[Here Comes the Sun](#)

[Following the Sun](#)

Be a Human Sundial

All you will need is sidewalk chalk and a sunny day for this activity! Find a spot where there won’t be any shadows from a tree or fences. Make a large circle and draw a small X in the center. This is where you or a friend will stand. Trace the shadow of the person standing on the X in the exact same position 2 or 2 times a day. How did their shadow move throughout the day?



MORE FUN: Use blocks or toys and a sheet of paper to do the same experiment above. Trace the shadow at different times during the day to watch how the shadow changes as the sun moves through the daytime sky!

STEP 2: OBSERVE THE MOON

Have you ever noticed the moon in the daytime sky? Sometimes it's there! It just doesn't seem very bright compared to the blue sky or clouds. When it's up at night it's hard to miss, and some nights it's brighter than others. Take a closer look at the moon and see how it seems to change shape over time.

Watch this video by clicking on the title!

[Why Does the Moon Change?](#)

Make a Moon Sky Book or Chart

Go outside with an adult at least 3 times and look at the moon. Maybe you could go outside every evening before or after dinner? Color in the circles to match what you see in the sky every night using the attached Moon Record Chart or make your very own Moon sky book! Each night can be a different page of your book. How does the moon change over time?

MORE FUN: Enjoying your nightly moon observation? Try to observe the moon for two weeks or even a whole month and log a complete lunar cycle!

STEP 3: MEET THE STARS

Now that you've observed the Sun (our closest star) and the Moon, it's time to see more stars! All of the other stars are much farther away than the Sun and the Moon. That's why they look like tiny points of light.

Watch this video by clicking on the title!


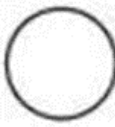
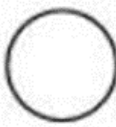
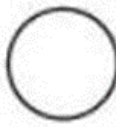
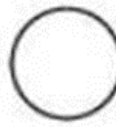
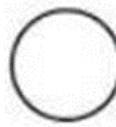
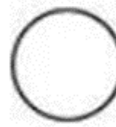
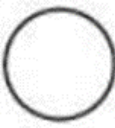
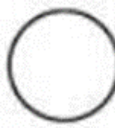
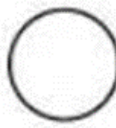


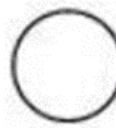


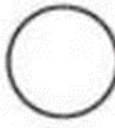
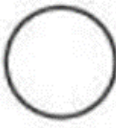
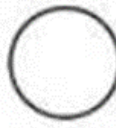
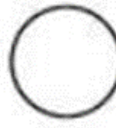


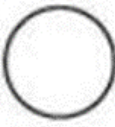
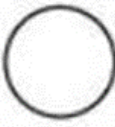
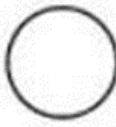
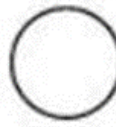
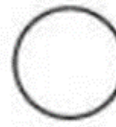
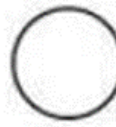
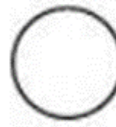
[Constellations: Connect the Dots in the Sky!](#)

Make a Pretend Telescope

A telescope is a tool that scientists can use to study the stars by making distant things seem brighter and bigger. Make a pretend telescope by decorating a toilet paper tube or rolled up piece of construction paper. You can even paint stars on it! Then take your telescope outside on a clear night, with an adult, and look through it at the stars as you use your creativity to pretend you're a NASA scientist!

MORE FUN: Our partners at the Rauch Planetarium suggest this website to learn so much more about space: [Earth and Space Science](#)

Moon Record Chart

Sun	Mon	Tue	Wed	Thurs	Fri	Sat
 Date _____ Time _____	 Date _____ Time _____	 Date _____ Time _____	 Date _____ Time _____	 Date _____ Time _____	 Date _____ Time _____	 Date _____ Time _____
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